

Last updated: August 2025

**SUSAN P.C. COLE, PHD, FRSC, FCAHS, FASPET*****CURRICULUM VITAE AND BIBLIOGRAPHY***

	<i>page</i>
• Education, Honours & Professional Experience	1
• Research Funding & Patents/Licenses	5
• Teaching & Trainee Supervision	9
• Invited Presentations	22
• Service & Administration	35
• Peer-Reviewed Publications	43
• Abstracts/Conference Presentations	67

**Citizenship:** Canadian (born Toronto, ON, Canada)

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\*\*\*\*\* **H-INDEX 91; i10-INDEX 230; CITATIONS 35,940** [GOOGLE SCHOLAR AUGUST 2025] \*\*\*\*\*

**EDUCATION**

1972-1976 Queen's University at Kingston  
 BSc (Honours, Biochemistry), 1976

1977-1981 Queen's University at Kingston  
 PhD (Pharmacology), 1981  
*(Advisor: Dr. G.S. Marks)*

1981-1982 Postdoctoral Fellow  
 Laboratory of Molecular Carcinogenesis  
 National Institutes of Health, Bethesda, MD, USA  
*(Advisors: Drs. H.V. Gelboin, J. Fagan, A. Peacock and M. Seidman)*

1982-1985 Research Associate/Senior Postdoctoral Fellow  
 Department of Microbiology & Immunology, Queen's University  
*(Advisor: Dr. J.C. Roder)*

**DISTINCTIONS** (*Honours, Prizes & Awards*)

2024 Fellow of the American Society for Pharmacology and Experimental Therapeutics (*elected*)

2022-present Allie Vibert "Vi" Douglas Distinguished University Professor Emerita, Queen's University

2020 Jeanne Manery Fisher Memorial Lecture Award – Canadian Society for Molecular Biosciences

2019-2021 Allie Vibert "Vi" Douglas Distinguished University Professorship, Queen's University

2017	Honorary Professor, Central South University, Changsha, Hunan, PRC
2017-2019	American Association for Cancer Research (AACR) International – Canada, Board of Directors
2016-2018	AACR Regional Advisory Subcommittee on Canada
2016	Featured in AACR <i>Cancer Research</i> 75 <sup>th</sup> Anniversary Celebration website as among top 62 most highly cited authors in 75 years
2015	MRP – listed on Council of Ontario Universities (COU) Top 50 Discoveries in University Research Spanning 100 Years
2015-2017	Chair, Division for Cancer Pharmacology, American Society of Pharmacology and Experimental Therapeutics ( <i>inaugural</i> )
2015	6 <sup>th</sup> Annual Hogarty Family Foundation Lecturer, University at Albany Cancer Research Center
2014-2018	Honorary Director, Jinan University Clinical Medical Research Institute (Cancer Institute), Guangzhou, Guangdong, PRC
2013-2021	Honorary Professor, Jinan University, Guangzhou, Guangdong, PRC
2012	PARTEQ Innovations 25 <sup>th</sup> Anniversary Award for “Most Licensed Technology”
2012	Queen Elizabeth II Diamond Jubilee Medal ( <i>national honour in recognition of contributions to Canada</i> )
2011	Fellow of The Canadian Academy of Health Sciences (CAHS) ( <i>elected</i> ) ( <i>national honour in recognition of outstanding performance in the academic health sciences</i> )
2008	Tier I Canada Research Chair ( <i>renewal</i> )
2008	Pfizer Senior Scientist Award of the Pharmacological Society of Canada
2007	National Cancer Institute of Canada Diamond Jubilee Award ( <i>national honour for outstanding contributions to cancer research</i> )
2006, 2011, 2016	Queen’s University Bracken Chair in Genetics and Molecular Medicine ( <i>inaugural, renewals</i> )
2005	Robert L. Noble Prize of the Canadian Cancer Society/National Cancer Institute of Canada
2003	British Medical Association Medical Book Competition - Commended in the Basic and Clinical Sciences category for <i>ABC PROTEINS: From Bacteria to Man</i> (co-editor)
2002	Ontario Distinguished Researcher Award
2001	Tier I Canada Research Chair ( <i>initial</i> )
2000	Fellow of The Royal Society of Canada, Academy of Science ( <i>elected</i> )
1999	C.W. Gowdey Distinguished Lecturer, University of Western Ontario
1996	Monbusho Visiting Professorship, Kyushu University, Japan
1994	Queen’s University Prize for Excellence in Research ( <i>highest university award for research contributions</i> )
1991	Merck-Frosst Award of the Pharmacological Society of Canada
1988	Mihran and Mary Basmajian Award for Excellence in Biomedical Research Faculty of Medicine, Queen’s University at Kingston
1985-2008	Career Scientist, Ontario Cancer Treatment and Research Foundation ( <i>now Cancer Care Ontario</i> ) ( <i>salary award</i> )
1982	National Cancer Institute of Canada Postdoctoral Fellowship ( <i>declined</i> )
1981	Fogarty International Fellowship, National Institutes of Health (USA)
1979	Annual Graduate Student Award of the Pharmacological Society of Canada

**POSITIONS HELD**

2022-present	Allie Vibert “Vi” Douglas Distinguished University Professor Emerita, Queen’s University
2019-2021	Allie Vibert “Vi” Douglas Distinguished University Professor, Queen’s University
2013	Researcher in Residence, PARTEQ Innovations ( <i>inaugural</i> )
2010-2012	Deputy Provost, Queen’s University ( <i>inaugural</i> )
2006-2021	Queen’s University Bracken Chair in Genetics and Molecular Medicine ( <i>inaugural, renewed 2011, 2016</i> )
2001-2015	Canada Research Chair in Cancer Biology (Tier I)
1985-2008	Scientist, Cancer Care Ontario ( <i>formerly OCTRF</i> )
2004-2010	Professor ( <i>Adjunct, Group I</i> ) Department of Chemistry, Queen’s University at Kingston
2022-2025	Professor ( <i>Adjunct, Group I</i> )
1995-2021	Professor ( <i>primary, tenured</i> )
1990-1995	Associate Professor
1988-1990	Assistant Professor
	Department of Pathology & Molecular Medicine, Queen’s University
2011-2021	Professor ( <i>cross-appointed</i> ) Department of Biomedical and Molecular Sciences, Queen’s University
1995-2011	Professor
1989-1995	Associate Professor Department of Pharmacology & Toxicology
1994-2021	Professor ( <i>cross-appointed</i> )
1989-1994	Associate Professor
1985-1989	Assistant Professor Department of Oncology, Queen’s University at Kingston
1983-1989	Assistant Professor Department of Microbiology & Immunology, Queen’s University
1976-1977	Research Technologist University of Alberta Cancer Research Unit, Edmonton, Alberta ( <i>Supervisors: Drs. L. Brox and J.F. Henderson</i> )

**LEAVES FROM TEACHING & ADMINISTRATIVE RESPONSIBILITIES**

*Maternity Leaves:* April-May 1985; August-December 1987; December 1989-May 1990

*Academic Leaves:* July-December 2003; July-December 2004; July-December 2013; January-June 2020

*Administrative Leave:* January-June 2013

### **EDITORIAL RESPONSIBILITIES**

- Editorial Advisory Board, *Molecular Pharmacology*, 2013-2016; 2016-2019
- Deputy and Senior Editor, *Molecular Cancer Therapeutics*, 2000-2012
- Editorial Board, *Journal of Biological Chemistry*, 2002-2007
- Associate Editor, *Cancer Research*, 1999-2002
- Co-editor with I.B. Holland, K. Kuchler and C.F. Higgins. *ABC Proteins: From Bacteria to Man* (Academic Press), 2000-2003 (2003 British Medical Association Competition - Commended in the Basic and Clinical Sciences category)
- Editorial Advisory Board, *Journal of Pharmacology and Experimental Therapeutics*, 1999

### **PROFESSIONAL MEMBERSHIPS**

- American Association for Cancer Research (AACR) (#4183) (*elected – Board of Directors 1996-99; Nominating Committee 2002-04*), 1983-present
- American Society for Biochemistry and Molecular Biology (ASBMB) (#12562), 1999-present
- American Society for Pharmacology and Experimental Therapeutics (ASPET) (#5716), 1997-present; Chair, Division for Cancer Pharmacology, 2015-17
- Canadian Academy of Health Sciences (*elected 2011*)
- Canadian Society for Molecular Biosciences (CSMB) (#413), 1998-present
- Canadian Society of Pharmacology and Therapeutics (CSPT), 2008-2018
- International Society for the Study of Xenobiotics (ISSX)
- International Society for Extracellular Vesicles (ISEV), 2016-17
- International Transmembrane Transporter Society (ITTS) (*Councillor 2014-21*), 2014-21
- Pharmacological Society of Canada (PSC) (*elected Councillor 1995-98*), 1989-2008
- Royal Society of Canada, Academy of Science (#31026) (*elected 2000*)
- Society of Toxicology (SOT), 2004-2010

### **BOARD MEMBERSHIPS**

- Board of Directors, AACR International – Canada, 2016-2019 (*invited*)
- Board of Trustees, Queen's University, 2008-2010 (*elected by alumni*)
- Board of Directors, PARTEQ Innovations Inc., Kingston, 1999-2002; 2002-2005; 2005-2006 (*invited*)
- Board of Directors, American Association for Cancer Research, 1996-1999 (*elected*)
- Scientific Advisory Board, Active Pass Pharmaceuticals, Vancouver, 2001-2007 (*invited*)
- Board of Directors, Thor Cancer 1 Dx Inc, 2015-2018 (*invited*)

### **CONSULTING**

- ISIS Pharmaceuticals, Carlsbad, CA (1993-97)
- Eli Lilly Pharmaceutical Company, Indianapolis, IN (1995-2002)
- Monsanto/Searle, St. Louis, MO (1996)
- Merck-Frosst, Montréal (2000)
- Boehringer-Ingelheim Pharmaceuticals, Inc., Ridgefield, CT (2001)

## RESEARCH FUNDING & PATENTS/LICENCES

### PEER-REVIEWED GRANTS, CONTRACTS and AWARDS

#### EXTERNAL

##### *As Principal Investigator:*

1985	• S.P.C. Cole	OCTRF	Operating ( <i>start-up</i> )	\$19,018
1985-87	• S.P.C. Cole	MRC (MA-9355)	Operating	\$100,200
1985-88	• S.P.C. Cole B.G. Campling	NCIC (No. 455)	Operating	\$157,462
1987-96	• S.P.C. Cole	NCIC (No. 2049)	Operating	\$921,077
1988-90	• S.P.C. Cole	Cancer Research Society	Operating	\$68,000
1989-12	• S.P.C. Cole R.G. Deeley	MRC (MT-10519) CIHR (MOP-10519)	Operating	\$3,171,950
1992-94	• S.P.C. Cole R.G. Deeley	Cancer Research Soc.	Operating	\$76,000
1996-97	• S.P.C. Cole	NCIC (No. 7196)	Operating	\$97,000
1997-00	• B.G. Campling S.P.C. Cole R.G. Deeley	NCIC (Terry Fox Program Project)	Operating	\$1,842,737
2000-03	• S.P.C. Cole R.G. Deeley M. Petkovich	NCIC (Terry Fox Program Project)	Operating	\$1,999,368
2003-06	• S.P.C. Cole	NCIC (No. 14219)	Operating	\$416,718
2001-08 2008-15	• S.P.C. Cole	CIHR	Canada Research Chair (Tier 1)	\$1,400,000 \$1,400,000
2010-11	• S.P.C. Cole	Prostate Cancer Fight Foundation	Operating	\$32,000
2010-15	• S.P.C. Cole	CIHR (MOP-106513)	Operating	\$663,619
2015-17	• S.P.C. Cole	Prostate Cancer Fight Foundation	Operating	\$31,456
2014-19	• S.P.C. Cole	CIHR (MOP-133584)	Operating	\$589,465

##### *Equipment/Maintenance/Infrastructure/Training Grants (as P-I):*

1993	• S.P.C. Cole	NCIC	Equipment	\$26,825
1998-01	• S.P.C. Cole	MRC (MT-14055)	Studentship Voucher	\$62,766
2001	• S.P.C. Cole	CFI (No. 200994)	Infrastructure	\$124,866
2002	• S.P.C. Cole	Ontario Innovation Trust (OIT)	Infrastructure	\$124,866

2011-12	• S.P.C. Cole T.E. Massey R. Oleschuk	CFI Leaders Opportunity Fund (LOF) (No. 27270)	Infrastructure	\$399,938
2011-12	• S.P.C. Cole T.E. Massey R. Oleschuk	Ministry of Research & Innovation (MRI) New Opportunities Fund	Infrastructure	\$400,000
2014-19	• S.P.C. Cole T.E. Massey R. Oleschuk	CFI Infrastructure Operating Fund (IOF) (No. 27270)	Operating	\$119,981

***Contract (as P-I):***

1993-97	• S.P.C. Cole R.G. Deeley	ISIS Pharmaceuticals	Contract	\$225,000
1995-97	• S.P.C. Cole R.G. Deeley	Centocor Diagnostics	Contract	\$100,000
1995	• S.P.C. Cole R.G. Deeley	Glaxo Pharmaceuticals	Contract	\$14,000
1996-97	• S.P.C. Cole R.G. Deeley	Monsanto/Searle	Contract	\$10,000
1997	• S.P.C. Cole	Bristol-Myers Squibb	Contract	\$3,000
2001-02	• S.P.C. Cole	Procter & Gamble	Contract	\$57,960

***As Co-Investigator:***

1985-87	• P.G. Forkert S.P.C. Cole	Ontario Thoracic Society	Operating	\$28,000
1985-88	• A.R. Giles S.P.C. Cole <i>et al</i>	NIH (US)	Operating	\$531,226
1994-97	• R.G. Deeley S.P.C. Cole	NCIC (No. 4570)	Operating	\$341,250
2003-08	• R.G. Deeley S.P.C. Cole	CIHR (MOP-62824)	Operating	\$954,800
2003-08	• B. Bennett S.P.C. Cole C. Ward	CIHR (MOP-64337)	Operating	\$607,915
2009-14	• R.G. Deeley S.P.C. Cole	CIHR (MOP-97877)	Operating	\$980,680
2018-20	• Y. Cai S.P.C. Cole	Guangzhou Economic Technology Development Zone	Operating	\$274,000

***Equipment/Maintenance/Infrastructure/Training Grants (as Co-I):***

1984	• J.C. Roder S.P.C. Cole	MRC	Equipment	\$22,000
1984	• J.C. Roder S.P.C. Cole	NSERC	Equipment	\$32,082
1985	• S.P.C. Cole	MRC	Equipment	\$15,092

1986-04	• B. Elliott S.P.C. Cole <i>et al</i>	MRC (MME-7827) CIHR (MT-7827)	Multi-user Equip/Maintenance	\$676,276
1987	• H.F. Pross S.P.C. Cole	Cancer Research Society	Equipment	\$7,154
1988	• H.F. Pross S.P.C. Cole	NCIC	Equipment	\$7,467
1990-91	• H.F. Pross S.P.C. Cole <i>et al</i>	MRC (ME-11102)	Equipment	\$47,000
2000	• T.G. Flynn S.P.C. Cole <i>et al</i>	CFI; OIT; Industry In- Kind Contributions	Infrastructure/ Equipment	\$8,962,571
2000	• J.L. Pater S.P.C. Cole <i>et al</i>	OIT	Infrastructure	\$4,473,600
2002-06	• G. Coté S.P.C. Cole <i>et al</i>	CIHR (STP-53905)	Training Grant in Proteomics	\$1,200,000
2002-09	• L. Mulligan S.P.C. Cole <i>et al</i>	CIHR (STP-53913)	Training Grant in Cancer	\$2,100,000
2005-06	• P. Greer S.P.C. Cole <i>et al</i>	CIHR (MME-74989)	Multi-user Equip/ Maintenance	\$92,165
2005-08	• A. Mak S.P.C. Cole <i>et al</i>	CIHR (MME-54191)	Multi-user Equip/ Maintenance	\$273,000
2005-10	• B.E. Elliott S.P.C. Cole <i>et al</i>	CIHR (MME-74988)	Multi-user Equip/ Maintenance	\$300,370
2006-11	• P.L. Davies S.P.C. Cole <i>et al</i>	CIHR (PRG-80162)	Research Resource	\$1,022,222
2009-15	• L. Mulligan S.P.C. Cole <i>et al</i>	CIHR (STP-53913)	Training Grant in Cancer	\$1,950,000
<b><i>Contract (as Co-I):</i></b>				
1998-02	• R.G. Deeley S.P.C. Cole	Eli Lilly	Contract	\$620,000
<b><i>Declined:</i></b>				
1985-87	• S.P.C. Cole B.G. Campling	MRC (MA-7941)	Operating	\$100,915
1987-89	• S.P.C. Cole	MRC (MA-9355)	Operating	\$108,000
1997-05	• S.P.C. Cole	MRC (MT-14055)	Operating	\$1,088,790
2000-03	• S.P.C. Cole	NCIC	Operating	\$450,000
2000-03	• R.G. Deeley S.P.C. Cole	NCIC	Operating	\$450,000
2000-05	• R.G. Deeley S.P.C. Cole	MRC	Operating	\$980,000
2003-08	• R.G. Deeley S.P.C. Cole	NCIC	Operating	\$750,000

**INTERNAL**

***As Principal Investigator:***

1984	• S.P.C. Cole	Queen's University Dean's MRC	Operating	\$4,725
1985	• S.P.C. Cole	Clare Nelson Bequest- KGH	Operating	\$9,000
1988	• S.P.C. Cole	Clare Nelson Bequest- KGH	Operating	\$9,000
2014	• S.P.C. Cole	Clare Nelson Bequest- KGH	Operating	\$10,000
1984	• S.P.C. Cole	Ontario Thoracic Society Block Grant	Equipment	\$6,978
1987	• S.P.C. Cole	Queen's Appeal Committee	Equipment	\$8,371
1992	• S.P.C. Cole S.E.L. Mirski	Clare Nelson Bequest- KGH	Equipment	\$6,442
1995	• S.P.C. Cole	Clare Nelson Bequest- KGH	Equipment	\$4,000

***As Co-Investigator:***

1985	• P.G. Forkert J.S. Elce S.P.C. Cole	Queen's University Principal's Development Fund	Operating	\$5,000
1986	• R.A. Whitney S.P.C. Cole	Clare Nelson Bequest- KGH	Operating	\$9,600
1987	• P.G. Forkert S.P.C. Cole	Deans' MRC	Operating	\$5,000
1990	• H.F. Pross S.P.C. Cole	Clare Nelson Bequest- KGH	Operating	\$6,880
1987	• S.P.C. Cole S.E.L. Mirski	Ontario Thoracic Society Block Grant	Equipment	\$8,371
1987	• J.H. Gerlach S.P.C. Cole et al	Queen's Lottery Funding	Equipment	\$30,895
1995	• A. Boag S.P.C. Cole et al	KGH	Equipment	\$11,179
2018	• T.E. Massey S.P.C. Cole	Spear and Start Fund, Queen's	Operating	\$29,000

**PATENTS***[assigned to Queen's University]*

- Multidrug Resistance Gene (International Publication No. WO 94/10303, issued 1994/05/11; U.S. Patent No. 5,489,519, issued 1996/02/06; Australian Patent No. 671160, issued 1996/12/03; Australian Patent No. 682140, issued 1998/01/08; Canadian Patent No. 2,147,372, issued 2004/04/06; Japanese Patent No. 3,682,926, issued 2005/06/03; European Patent No. 0666911B9, issued 2008/04/02).
- Isolated Nucleic Acid Molecules Encoding Multidrug Resistance Proteins (U.S. Patent No. 5,766,880; issued 1998/06/16)



- Methods for Identifying Multidrug Resistant Tumor Cells (U.S. Patent No. 5,882,875; issued 1999/03/16)
- Methods for Conferring Multidrug Resistance on a Cell (U.S. Patent No. 5,891,724; issued 1999/04/06)
- Methods for Identifying Chemosensitizers (U.S. Patent No. 6,001,563; issued 1999/12/14)
- Multidrug Resistance Proteins (U.S. Patent No. 6,025,473; issued 2000/02/15)
- Antibodies to a Multidrug Resistance Protein (U.S. Patent No. 6,063,021; issued 2000/05/16)

### **LICENSING AGREEMENTS**

[Career Total: 28] [*through PARTEQ Inc.*]

- Abnova (2012)
- Alexis Biochemicals Corporation (2003)
- Avigen, Inc. (1993)
- BASF Research Corp. (1994)
- BD Biosciences (formerly Pharmingen) (2001)
- Becton Dickinson and Company (now Corning) (2004)
- BioLegend (formerly Covance Antibody Services) (2002)
- Cadus Pharmaceutical Corp. (1993)
- Centocor, Inc. (1995)
- Eli Lilly and Company (1993)
- Enzo Life Sciences AG (2008)
- Genetex (2008)
- Genetic Therapy, Inc. (1994)
- GenoMembrane Inc. (2008)
- IDEC Pharmaceuticals Corp. (1993)
- Indiana University (Bloomington) (2009)
- Ingenex, Inc. (1993)
- ISIS Pharmaceuticals Inc. (1993)
- MBL International (2008)
- Millipore Sigma (formerly Chemicon International Inc and Sigma Aldrich.) (2001)
- Netherlands Cancer Institute (2009)
- Novus Biologicals, LLC (2009)
- R&D Systems, Inc. (now Bio-Techne) (2002)
- Ricerca Biosciences, LLC (2012)
- Santa Cruz Biotechnology, Inc. (2001)
- Signet Laboratories, Inc. (2002)
- Solvo Biotechnologies Inc. (now Citoxlab) (2005)
- Stichting Research Fonds Pathologie (2009)
- United States Biological (2008)

### **TEACHING & TRAINEE SUPERVISION**

#### **UNDERGRADUATE TEACHING & SUPERVISION**

##### **Teaching:**

- CANC440/0.5 - Cancer Biology & Therapeutics (course development), 2007-08

- CANC440/0.5 - Cancer Biology & Therapeutics (lectures, seminars), 2009, 2010
- CANC440/3.0 - Cancer Biology & Therapeutics (lectures, seminars), 2014-2021
- CANC440/3.0 - Cancer Biology & Therapeutics – Course Co-coordinator, 2017, 2021
- CANC440/3.0 – Cancer Biology & Therapeutics – Course Coordinator, 2018, 2019
- PATH425/3.0 - Current Topics in Human Genetics (1 h lecture, 4 h seminar), 2015 (x 2), 2016, 2017
- PHAR416/0.5 - Xenobiotic Disposition & Toxicity (lectures), 2001-02; 2005-08
- PHAR450/0.5 - Principles of General Pharmacology II (lectures), 1998-2002; 2005-09
- PHAR340/0.5 - Principles of General Pharmacology I (lectures), 1996; 2004-10
- PHAR411/0.5 - Principles of Pharmacology & Toxicology (lectures), 1984, 86, 88, 90, 92, 94-00 (*course discontinued 2001*)
- PHAR411/0.5 - Principles of Pharmacology & Toxicology - Course Coordinator 1990, 92, 94 (*course discontinued 2001*)
- PHAR420/1.0 - Principles of Pharmacology (lectures, tutorial), 1988-89; 1991-96 (*course discontinued 1996*)
- PHAR520/1.0 - Medical Pharmacology (lectures, lab, tutorial), 1991, 92 (*course discontinued 1992*)
- PHAR230/0.5 - Pharmacology for the Health Sciences (lectures), 1991
- PHAR420/1.0 Laboratory Demonstrator, 1977-81
- MICR520/1.0 (for medical students), 1984-86
- MICR120/1.0 (lectures), 1985-86
- MICR432/0.5 (lectures), 1985-86
- CHEM112/1.0, Laboratory Demonstrator, 1974-76; 1978-80

**Supervision** (>40 completed):

CANC499/9.0 or 12.0:

2015-2016	E.E. Smith (winner of the Cancer Biology Undergraduate Research Prize)
2017-2018	A. Lauzon

PHAR499/1.5; PHAR499/9.0:

1991-1995	K. Almquist, B. Smith, J. Ross (with B. Bennett), A.J. Lang
1992-1993	K. Ernst
1997-1998	L. Organ
1998-1999	B. Levac
2000-2001	K.W.J. Lee
2001-2002	J.C. Bielawski
2002-2003	N.S. Kanji
2003-2004	J.D.H. Leung
2004-2005	S. Ikeda
2005-2006	M.X. Luo
2006-2007	M.K. DeGorter (winner of undergraduate research prize; Vanier Scholar)
2008-2009	L.C.M. Hawkins
2013-2014	M.A. Csandl

2016-2017 E. St. George (with T. Massey)

PATH420/499/1.5:

1992-1993 D.R. Hipfner  
 1993-1994 S. McGill  
 1994-1995 Z. Schwartz  
 1996-1997 H.J. Cummings, T. Subissati  
 2000-2001 Z. Kaderali  
 2002-2003 Q. Li  
 2008-2009 Y. Sun

BCHM421/422/2.0:

2000-2001 J. Bates  
 2001-2002 A. Smaggus, C. Polson, C. Montgomery  
 2002-2003 S. Woods  
 2003-2004 J. Chiu, J. Cao

BCHM421/422/12.0:

2012-2013 L. Sinai

MICR440/1.5:

1983-1986, 1988 R. Cheng, L. Dunphy, P. Paterson, E. Osborne, S. Miner

SUMMER STUDENTS:

1984 S. Buchanan (MRC summer studentship) (with J. Roder)  
 1985 R. Cheng (with J. Roder)  
 1987 H. Downes (NSERC summer studentship)  
 1988 H. Downes (Thomas M. and Louise A. Brown Research Scholarship)  
 K. Thompson  
 1989 F. Dicke  
 1990 F. Dicke (PMAC summer studentship); K. Almquist  
 1991 K.C. Almquist  
 1992 D.R. Hipfner; K.C. Almquist (PMAC summer studentship)  
 1994 R. Comley; S. Gauldie  
 1995 R. Comley; S. Ahmad; D. Fenech (PMAC summer studentship)  
 1996 A. Lang; E. Leslie  
 1997 H. Cummings; J. Ooi (PMAC summer studentship)  
 1998 B. Levac (PMAC summer studentship); M. McFadden  
 2000 J. Bryant  
 2001 J. Bielawski  
 2002 A. Saltzman; N. Kanji  
 2003 J.H. Foley  
 2004 S. Nandra; S. Ikeda  
 2005 S. Nandra; J. Poh  
 2006 A. Lau; K. Starr  
 2007 M. DeGorter  
 2008 L.C.M. Hawkins  
 2013 M.A. Csandl  
 2015 E.E. Smith

2016 E.E. Smith (QCRI Craig Jury summer studentship)  
 2017 A. Lauzon

#### CO-OP STUDENTS:

2019 J.M. Steele (University of Waterloo)

#### VOLUNTEERS:

2011-12 G. Mullins

### **GRADUATE and POSTDOCTORAL TEACHING & SUPERVISION:**

#### **Teaching:**

- BMED860/3.0 - Fundamentals of Research, 2014-15
- PHAR812/1.0 - Methodology in Pharmacology & Toxicology (*evaluation/grading of research proposals; laboratory; lecture*), 1990-07
- PHAR811/0.5 - Principles of Pharmacology & Toxicology (*lectures, journal clubs, essay supervision, evaluations*), 1984, 86, 88, 90, 92; 1994-00
- PHAR811/0.5 - Principles of Pharmacology & Toxicology - Course Coordinator, 1990, 92, 94 (*course discontinued 2001*)
- PHAR811/0.5 - Topics in Drug Discovery & Development, 2002, 06, 08
- PATH823/0.5 - Cancer Biology (*lectures, journal club, essay supervision*), 1986, 92, 94, 96, 98, 2000
- PATH822/0.5 - Experimental Cancer Therapeutics, 2007, 2009, 2019, 2021
- PATH827/1.0 - Research Project in Pathology, 2003-07, 2009-10, 2010-11, 2016, 2019-20
- Immunology Graduate Courses (*lectures, seminar leader*), 1983-87, 1989

#### **Supervision Summary:**

- *Graduate Student Supervision:*
  - 18 MSc, 13 PhD theses completed (3 co-supervised)
- *Postdoctoral Fellow Supervision:*
  - 31 completed (1 co-supervised)
- *Graduate Student Committees:*
  - Thesis Advisory Committees (*since 2001*): 28
  - PhD Comprehensive Examining Committees (*since 1993*): 27
  - Queen's Thesis Examining Committees (*since 1993*): 76 (19 as Chair)
  - External PhD Thesis Examiner (*since 1993*): 10

### **GRADUATE STUDENTS:**

#### **MSc**

1985-1988 S.A. Mohamdee - MSc (Microbiology & Immunology)  
*Thesis:* Monoclonal Antibodies Against the Multidrug Resistant Human Ovarian Carcinoma Cell Line, 2780.AD645  
 [current position: high school science teacher, Belleville, ON]

1987-1989 B. Campigotto - MSc (Microbiology & Immunology)  
 (R.S. McLaughlin Fellowship 1987; Ontario Thoracic Society 1988)  
*Thesis:* Modulation of Major Histocompatibility Complex Antigen Expression in a Drug Sensitive and a Drug Resistant Human Small Cell Lung Cancer Cell Line

- [*last known position*: secondary school teacher, Ontario]
- 1988-1991 M.J. Pinkoski - MSc (Pathology); (PhD, University of Alberta)  
(Cancer Research Society Graduate Fellowship 1989-91)  
*Thesis*: Identification of a Resistance Associated Antigen in a Multidrug Resistant Small Cell Lung Carcinoma Cell Line  
[*last known position*: Adjunct Professor, University of Alberta, Edmonton, AB]
- 1989-1991 K. Krebs - MSc (Microbiology & Immunology)  
*Thesis*: Small Cell Lung Cancer Multidrug Resistance-Associated Antigens on Peripheral Blood Mononuclear Cells  
[*last known position*: Staff Scientist, DuPont, USA]
- 1990-1992 C.D. Evans - MSc (Pharmacology & Toxicology)  
(Queen's University Graduate Fellowship 1990)  
*Thesis*: Multidrug Resistance in Small Cell Lung Cancer: The Role of Topoisomerase II  
[*last known position*: Vice-President, Public Health Agency Canada, Ottawa, ON]
- 1993-1995 Q. Yu - MSc (Pharmacology & Toxicology)  
(Queen's University Graduate Fellowship 1993)  
*Thesis*: Molecular Characterization of a Mutant Topoisomerase II $\alpha$  mRNA in the Drug Resistant Lung Cancer Cell Line, H209/V6  
[*current position*: see below]
- 1995-1996 S.R. Wright - MSc (Pathology) (*not completed*) (*primary supervisor*: R.G. Deeley)  
(Ontario Graduate Scholarship 1995)  
[*current position*: Family physician, Waterloo, ON]
- 1998-2000 M.J. Savoie - MSc (Pharmacology & Toxicology)  
*Thesis*: Role of mRNA Stability in Reduced Topoisomerase II $\beta$  Expression in a Drug Resistant Lung Cancer Cell Line  
[*current position*: Manager, Office of Compliance and Oversight, Canadian Cancer Trials Group, Kingston, ON]
- 2001-2003 D. Situ - MSc (Pathology & Molecular Medicine)  
*Thesis*: Functional Consequences of Charged Amino Acid Substitutions In and Around Transmembrane Helices in the Third Membrane Spanning Domain of MRP1  
[*last known position*: Clinical Evaluator, Health Canada, Ottawa, ON]
- 2002-2004 K.F. Clark - MSc (Pathology & Molecular Medicine) (PhD 2013, UPEI)  
*Thesis*: Examining the Extracellular Topology of Multidrug Resistance Protein 1 (MRP1): A Substituted Cysteine Accessibility Method  
[*current position*: Assistant Professor, Department of Animal Sciences and Aquaculture, Dalhousie University, Nova Scotia]
- 2004-2006 M. Chan - MSc (Pharmacology & Toxicology); (PhD 2013, Queen's)  
(Queen's Cancer Research Institute - CIHR Transdisciplinary Training Program in Cancer Research Graduate Award, 2004-06)  
*Thesis*: Mechanisms of Tumour Cell Death Induced by Novel Titanium-based Agents  
[*last known position*: see below]
- 2005-2007 C. (Y.M.) Chan - MSc (Pathology & Molecular Medicine)

- Thesis:* Functional Analysis of Single Nucleotide Polymorphisms in the Proximal Promoter Regions of the Multidrug Transporter Genes MRP1/ABCC1 and MRP4/ABCC4  
 [last known position: Research Project Manager, Saskatchewan Pulse Growers, Saskatoon, SK]
- 2006-2008 X. Wang - MSc (Pathology & Molecular Medicine)  
*Thesis:* Biochemical Characterization of Nucleotide and Protein Interactions of Human Multidrug Resistance Protein 1 (MRP1/ABCC1)  
 [current position: Scientist, Abmart, Shanghai, PRC]
- 2007-2009 S.V. Molinski - MSc (Pharmacology & Toxicology); (PhD 2015, University of Toronto)  
 (Eldon Boyd Fellowship 2007-08, 2008-09)  
*Thesis:* Functional Analysis of an  $\alpha$ -Helical Region in the Human Multidrug and Organic Anion Transporter MRP1  
 [last known position: Applications Scientist, Cyclica Inc., Toronto]
- 2009-2011 R.L. Myette – MSc (Pathology & Molecular Medicine)  
*Thesis:* Chalcogenopyrylium Dyes as Modulators of Multidrug Resistance Protein (MRP) 1, MRP2 and MRP4 Transport Activities  
 [current position: Pediatric nephrologist, Childrens Hospital of Eastern Ontario]
- 2014-2015 R.A. Millott - MSc (Biomedical & Molecular Sciences) (*withdrew*)  
 (Ontario Graduate Scholarship 2014-2015; CIHR Canada Graduate Scholarship; CUFW Memorial Fellowship 2015-16)  
 [last known position: graduate student, University of Alberta]
- 2014-2015 M.A. Csandl - MSc (Biomedical & Molecular Sciences)  
 (Eldon Boyd Fellowship 2014)  
*Thesis:* Effect of Leukotriene Modifiers (LTMs) on Organic Anion Transport by Multidrug Resistance Proteins (MRPs)  
 [current position: Optometrist, Kelowna, BC]
- 2016-2018 J.F. Power – MSc (Pathology & Molecular Medicine)  
 (Terry Fox Research Institute Future Leader Studentship 2016; R.S. McLaughlin Fellowship 2017-18)  
*Thesis:* The Role of Extracellular Vesicles in the Transfer of Multidrug Resistance in Human Ovarian Cancer Cells  
 [last known position: student, Algonquin College, ON]
- 2016-2018 E.E. Smith – MSc (Pathology & Molecular Medicine)  
 (R.S. McLaughlin Fellowship 2016-17; Queen's Graduate Entrance Tuition Award 2016; Bracken Fellowship 2017-18)  
*Thesis:* The Regions Connecting the Membrane-spanning and Nucleotide-binding Domains of Multidrug Resistance Protein 1 (MRP1) are Functionally Distinct  
 [current position: Technical Officer, National Research Council, Montreal]

### **PhD**

- 1991-1998 E.U. Kurz - PhD (Pharmacology & Toxicology) (*primary supervisor*)  
 (R.S. McLaughlin Fellowship 1991; MRC Studentship 1992-1997; Colorado Cancer Society Fellowship 1999; Alberta Heritage Foundation Fellowship 2001)

- Thesis:* Studies of Molecular Mechanisms Regulating Transcription of the Human Multidrug Resistance Protein (MRP) Gene  
 [current position: Professor, Dept. of Pharmacology & Toxicology, University of Toronto]
- 1995-1998 Q. Yu - PhD (Pharmacology & Toxicology)  
 (Fogarty International Fellowship, NIH 1998)  
*Thesis:* Molecular Analyses of Topoisomerase II $\alpha$  Alterations in a Drug Resistant Lung Cancer Cell Line  
 [current position: Senior Group Leader, Cancer Biology and Pharmacology, Genome Institute of Singapore]
- 1993-1998 K.C. Almquist - PhD (Pathology) (*not completed*)  
 [last known position: Research Associate, Guelph University]
- 1993-1998 D.R. Hipfner - PhD (Pathology)  
 (Queen's University Graduate Fellowship 1993; MRC Studentship 1994-1998; Queen's University – Division I (Life Sciences) Outstanding Thesis 1999; MRC Postdoctoral Fellowship 1998-2001; EMBL Fellowship 1998-2001; Human Frontiers Fellowship 1998-2002)  
*Thesis:* Structural and Functional Analysis of the Multidrug Resistance Protein, MRP, Using Monoclonal Antibodies  
 [current position: Associate Research Professor, Director of Epithelial Cell Biology Research Unit, Institut de Recherches Cliniques de Montréal (IRCM)]
- 1995-2000 M. Gao - PhD (Pathology) (*primary supervisor:* R.G. Deeley)  
 (Queen's University Graduate Fellowship 1997-2000)  
*Thesis:* Structure and Function Analysis of the Human Multidrug Resistance Protein 1, MRP1  
 [current position: Senior Research Investigator II, Bristol-Myers Squibb, NJ]
- 1996-2001 A.J. Lang - PhD (Pharmacology & Toxicology)  
*Thesis:* Human Topoisomerase II: Investigation of Human *TOP2A* and *TOP2B* Structure and Regulation (CIHR Studentship 1998-2001)  
 [last known position: Manager, Medical Information, Janssen Pharmaceuticals, Toronto]
- 1997-2002 E.M. Leslie - PhD (Pharmacology & Toxicology)  
 (Ontario Graduate Scholarship 1997, 1998; CIHR Doctoral Award 1999-2002; CIHR Postdoctoral Fellowship 2002-2005; Davies Charitable Foundation Fellowship 2002)  
*Thesis:* Substrate Specificity and Structure-Function Relationships of Human Multidrug Resistance Protein 1 (MRP1)  
 [current position: Professor (tenured) of Physiology and Laboratory Medicine & Pathology, University of Alberta]
- 1998-2004 C.J. Oleschuk - PhD (Pharmacology & Toxicology)  
 (CIHR Doctoral Award 1998-2001; Ontario Graduate Scholarship 2001-2002; Clinical Chemistry Fellowship, McMaster University 2004-2006)  
*Thesis:* Structure-Function Studies of the Multidrug Resistance Proteins  
 [current position: Head, Clinical Biochemistry, Department of Pathology & Molecular Medicine; Kingston Health Science Centre, Kingston, ON]
- 1997-2005 K.E. Weigl - PhD (Pathology & Molecular Medicine)  
 (McLaughlin Fellowship 2001-2003)

- Thesis:* Biochemical Investigations of MRP1: Analysis of Glycosylation and Topology  
 [current position: Laboratory Head, Enzyme Analytics, Abbott Products GmbH, Hannover, Germany]
- 2001-2007 I.J. Létourneau - PhD (Pharmacology & Toxicology)  
 (Frank Carrel Fellowship 2001, 2002; Ontario Graduate Scholarship 2003-2004; CIHR Doctoral Award, 2004-2007; FRSQ PDF 2009-2012)  
*Thesis:* Pharmacogenetic, Functional and Toxicological Studies of the Human Multidrug and Organic Anion Transporters MRP1, MRP2 and MRP3  
 [current position: Associate, Institut national d'excellence en santé et en services sociaux, Québec, QC]
- 2004-2008 G. Potter - PhD (Chemistry) (*primary supervisor:* M.C. Baird)  
*Thesis:* A Novel Series of Titanocene Dichloride Derivatives: Synthesis, Characterization and Assessment of Their Cytotoxic Properties  
 [last known position: Research Engineer, Borealis AG, Austria]
- 2005-2011 A.J. Slot - PhD (Pathology & Molecular Medicine)  
 (Robert John Wilson Fellowship 2005-2007; R.S. McLaughlin Fellowship 2007-2008; CIHR Doctoral Award, 2007-2010)  
*Thesis:* Modulation of Human Multidrug Resistance Proteins by Reactive Quinone-based Glutathione Conjugates  
 [last known position: Acting Associate Director, Health Canada, Ottawa]
- 2009-2012 M.Z. Perry – PhD (Pathology & Molecular Medicine) (*withdrew*)  
 [last known position: Study Co-ordinator, Hospital for Sick Children, Toronto]
- 2006-2013 M. Chan - PhD (Pharmacology & Toxicology)  
 (Robert John Wilson Fellowship 2006-2008; R.S. McLaughlin Fellowship 2008-2009)  
*Thesis:* Studies of the Misprocessing Mutations R1202D and E1204K in the Drug and Organic Anion Transporter, MRP1 (*ABCC1*) in Cultured HEK Cells  
 [last known position: McKinsey Management Consulting, USA]
- 2009-2015 M.F. Miah – PhD (Pathology & Molecular Medicine)  
 (Robert John Wilson Fellowship 2009-2011; CIHR Banting and Best Graduate Scholarship 2011-2013; Ontario Graduate Scholarship 2010-2011)  
*Thesis:* Investigations into the Plasma Membrane Trafficking of Multidrug Resistance Protein 4 (*ABCC4*/MRP4)  
 [last known position: Managing Consultant, IBM Consulting, Toronto]

### **POSTDOCTORAL FELLOWS**

- 1985-1990 S.E.L. Mirski (PhD, McMaster University) (maternity leave 8/86-1/87)  
 [current position: retired]
- 1990-1992 G. Bhardwaj (MB, India)  
 [last known position: Gastroenterologist, FL]
- 1990-1992 J.E. Mackie (PhD, Queen's University)  
 (MRC Postdoctoral Fellowship, 1990-92)  
 [current position: Assistant Professor, Trent/Fleming School of Nursing, Trent University, Peterborough, ON]
- 1992-1994 A.J. Stewart (PhD, Newcastle, UK)  
 (Cancer Research Society Inc. Fellowship, 1992-94)  
 [last known position: Principal, AJS Consulting Inc., Vancouver]



- 1994-1995 Y. Canitrot (PhD, Perpignan, France)  
(League Nationale Française Contre le Cancer Fellowship, 1994-95)  
[*current position*: Scientist, INSERM, Toulouse, France]
- 1995-1997 I. Neverova (PhD, Moscow University)  
[*last known position*: Adjunct Assistant Professor, Dept. Physiology, Queen's University]
- 1996-1997 M. Yamazaki (PhD, Toho University, Japan)  
[*last known position*: Manager, Clinical Development Department I, R&D Division, Daiichi Sankyo, Tokyo, Japan]
- 1993-1998 D.W. Loe (PhD, Guelph University)  
[*current position*: Managing Director and Analyst, Healthcare & Biotechnology, Leede Jones Gable, Toronto]
- 1996-1998 S.L. Olsen (PhD, Melbourne University, Australia)  
(International Agency for Cancer Research Fellowship, 1996-97)  
[*last known position*: Research Associate, Fiona Elsey Cancer Research Laboratory, Ballarat University, Australia]
- 1998-2000 W. Qiu (PhD, Shanghai Institute of Entomology, China)  
[*last known position*: Research Associate, Hospital for Sick Children, Toronto]
- 1998-2001 K.-i. Ito (MD, Kanazawa University; PhD, Kyushu University, Japan)  
[*current position*: Professor and Chair, Dept. of Surgery (II), Shinshu University, Matsumoto, Japan]
- 1999-2001 Y.M. Qian (PhD, Hong Kong University) (*primary supervisor*: R.G. Deeley)  
[*last known position*: Bristol Myer Squibb, USA]
- 1997-2002 Q. Mao (PhD, Berne University, Switzerland)  
[*current position*: *deceased 2024*; Professor (with tenure), Dept. of Pharmaceutics, University of Washington, Seattle, WA]
- 2001-2002 C.N. Lok (PhD, Hong Kong University)  
[*last known position*: Research Assistant Professor, Dept. of Chemistry, The University of Hong Kong]
- 2001-2002 E. Burns (PhD, University of North Carolina)  
[*last known position*: Patent agent, Ottawa]
- 2001-2003 K. Koike (MD, PhD, Kyushu University, Japan)  
[*last known position*: Assistant Professor, Japanese Red Cross Fukuoka Hospital, Fukuoka, Japan]
- 2002-2004 C. Moreau (PhD, University of Grenoble, France)  
(Fondation pour la Recherche Médicale Fellowship, 2002-03; Cancer Research Society Postdoctoral Fellowship, 2003-04)  
[*current position*: Scientist, CNRS Institut de Biologie Structurale, Grenoble, France]
- 2000-2004 A. Haimeur (PhD, Laval University)  
(Queen's University Postdoctoral Fellowship, 2000-01 (*declined*); MRC/CIHR Postdoctoral Fellowship, 2000-03)  
[*last known position*: Assistant Professor, Centre de recherche en Infectiologie de l'Université Laval; Consultant]
- 2000-2005 G. Conseil (PhD, Institut de Biologie et Chimie des Protéines, Université Claude Bernard de Lyon, France) (maternity leave 11/04-03/05)

- (League Nationale Française Contre le Cancer Fellowship; 2000-01; CIHR Postdoctoral Fellowship, 2001-04; Cancer Research Society Postdoctoral Fellowship, 2001-03 (*declined*))  
 [current position: Research Associate, Queen's University]
- 2003-2006 J.P. Wyles (PhD, Dalhousie University)  
 (NCIC - Terry Fox Foundation Research Fellowship, 2004-07)  
 [current position: Secondary school science teacher, BC]
- 2004-2006 P. Wu (PhD, Tianjin University, PRC)  
 [last known position: Scientist, Johnson & Johnson Pharmaceutical Research & Development, Raritan, NJ]
- 2004-2006 A. Nakajima (MD, PhD, Kyoto University, Japan)  
 (George Christian Hoffman Fellowship, 2004-06)  
 [last known position: Assistant Professor, Toyooka Public Hospital, Toyooka, Japan]
- 2004-2007 A.J. Rothnie (PhD, Oxford University, UK)  
 (CIHR Postdoctoral Fellowship, 2006-07)  
 [current position: Senior Lecturer, School of Life and Health Sciences, Aston University, Birmingham, UK]
- 2006-2008 K. Maeno (MD, PhD, Shinshu University, Japan)  
 [current position: Associate Professor, Dept. of Surgery (II), Shinshu University, Matsumoto, Japan]
- 2005-2009 Md. T. Hoque (PhD, Tokyo Institute of Technology, Japan)  
 [current position: Senior Research Associate, Faculty of Pharmacy, University of Toronto]
- 2007-2012 S.H. Iram (PhD, University of Illinois at Urbana-Champaign, USA)  
 [last known position: Assistant Professor, Dept. of Chemistry and Biochemistry, South Dakota State University, Brookings, SD, USA]
- 2010-2013 Á. Hernández (PhD, Madrid Autonomous University, Spain)  
 [current position: Scientist, Viralgen Vector Core, Spain]
- 2010-2013 Y. Hassan (PhD, University of Nebraska-Lincoln, USA)  
 [current position: Laboratory Coordinator III, College of Agriculture and Life Sciences, University of Arizona, Muscat, Oman]
- 2012-2014 C. Gao (PhD, Shanghai Institute of Materia Medica, Shanghai, PRC)  
 [current position: Senior Principal Scientist, Johnson & Johnson Innovative Medicine, Malvern, PA, USA]
- 2014-2016 M. Joshi (PhD, University of Munich, Germany)  
 [last known position: Research Associate, Ottawa Institute of Systems Biology, University of Ottawa]
- 2015-2016 M.F. Miah (PhD, Queen's University)  
 [current position: Senior Consultant, Canadian Imperial Bank of Commerce, Toronto]

### **VISITING SCIENTISTS AND STUDENTS**

- 1994-1995 D. Lautier, PhD (Scientist, INSERM at Toulouse, France)
- 06/1995 M. Filipits, PhD [last known position: Associate Professor, Institute of Cancer Research, Medical University of Vienna, Austria]
- 06-07/2000 H. Nakamura and T. Nanko (MD students, Shinshu University Medical School, Matsumoto, Japan)

- 2000-2001 S. Conrad (PhD candidate, University of Kaiserslautern, Germany)  
[*last known position*: Quality Expert for Medical Device Development,  
Novartis Pharma AG, Basel, Switzerland]
- 06/2003 J.D. Campbell (PhD candidate, Oxford University, UK)  
[*last known position*: Medical student, UBC]
- 08/2004 R. Callaghan, PhD (Professor, Oxford University, UK)
- 09/2004 A. Ivetac (PhD candidate, Oxford University, UK)
- 07-08/2006 K. Starr (undergraduate research project, Nottingham University, UK)
- 05-08/2012 M.T.D. Yu, PhD (Research Officer, University of New South Wales, Australia)
- 09-12/2014 A. Blauz, PhD (Postdoctoral Fellow, Department of Molecular Biophysics,  
University of Lodz, Poland)
- 03-09/2016 K. Ziems (Post-graduate student, University Medicine Greifswald, Germany)
- 01-04/2019 K.M. Hanssen (Post-graduate student, University of New South Wales, Australia)

### **GRADUATE STUDENT COMMITTEES**

#### ***Thesis Examining Committees (since 1993):***

1993 PhD	S. Daly	Biochemistry, University of Western Ontario
1994 PhD	H. Hao	Biology
1994 PhD	D. Marks	University of Technology, Sydney (Australia)
1994 MSc (Chair)	R.D. Dovell	Community Health & Epidemiology
1994 MSc	C. Cuthbert	Biochemistry
1995 PhD	R. Nigam	Pharmacology & Toxicology
1995 mini-MSc	J.J. McGuire	Pharmacology & Toxicology
1995 MSc	S.H. Im	Pharmacology & Toxicology
1995 MSc	Q. Yu	Pharmacology & Toxicology
1996 MSc	S.J. Matthews	Pharmacology & Toxicology
1996 MSc	J. White	Pathology
1996 MSc	H. Liu	Pharmacology & Toxicology
1997 PhD	I. Jordan	Biochemistry, University of Ottawa
1997 mini-MSc	M. Gao	Pathology
1997 PhD (Chair)	C. Gee	Biology
1998 mini-MSc	A.J. Lang	Pharmacology & Toxicology
1998 PhD	J.P. McPherson	Pharmacology, University of Toronto
1998 MA (Chair)	N. Viau	Psychology
1998 PhD	Q. Yu	Pharmacology & Toxicology
1998 PhD	E.U. Kurz	Pharmacology & Toxicology
1998 PhD	J. White	Pathology
1998 mini-MSc	E.M. Leslie	Pharmacology & Toxicology
1998 PhD	D.R. Hipfner	Pathology
1999 PhD	B.D. Stride	Biochemistry
1999 PhD	J.J. McGuire	Pharmacology & Toxicology
1999 mini-MSc	K.E. Weigl	Pathology
1999 PhD (Chair)	N.C. Doubleday	Biology
2000 PhD	J. Dheekollu	Biochemistry, University of Hyderabad (India)
2000 mini-MSc	B. Brown	Pathology
2000 MSc	B. Yang	Physiology
2000 mini-MSc	D. Greer	Pathology

2000 PhD	M. Gao	Pathology
2000 MSc	M. Savoie	Pharmacology & Toxicology
2001 PhD	K. Al-Batayneh	Biology
2001 MSc	T. Voskoglou-Nomikos	Community Health & Epidemiology
2001 MSc	H. Dunkerley	Pharmacology & Toxicology
2001 PhD	A.J. Lang	Pharmacology & Toxicology
2002 mini-MSc	D. Néhmé	Microbiology & Immunology
2002 PhD	E.M. Leslie	Pharmacology & Toxicology
2002 mini-MSc	I.J. Létourneau	Pharmacology & Toxicology
2003 mini-MSc	J. Wan	Pharmacology & Toxicology
2003 MSc	D. Situ	Pathology & Molecular Medicine
2004 PhD	S. Dallas	Pharmaceutical Sciences, University of Toronto
2004 PhD	C.J. Oleschuk	Pharmacology & Toxicology
2004 PhD	F. Visser	Oncology, University of Alberta
2004 MSc	K.F. Clark	Pathology & Molecular Medicine
2005 PhD	C. Paul	Microbiology & Immunology
2005 mini-MSc	D. Richardson	Pathology & Molecular Medicine
2005 MSc	D.H. Lam	Physiology
2005 PhD	K.E. Weigl	Pathology & Molecular Medicine
2005 mini-MSc	L. Mok	Pathology & Molecular Medicine
2006 MSc	M. Chan	Pharmacology & Toxicology
2006 mini-MSc	E. Tung	Pharmacology & Toxicology
2006 PhD (Chair)	J. Wicke	Physical & Health Education
2006 MSc	A. Boros	Pathology & Molecular Medicine
2007 MSc	S. Organ	Pathology & Molecular Medicine
2007 PhD	I.J. Létourneau	Pharmacology & Toxicology
2007 PhD	J. Wan	Pharmacology & Toxicology
2007 MSc	C. (Y.M.) Chan	Pathology & Molecular Medicine
2007 MSc	R. Singh	Pharmacology & Toxicology
2008 PhD (Chair)	P. Lungchukiet	Biology
2008 PhD	G. Potter	Chemistry
2008 mini-MSc (Chair)	M. Golder	Pathology & Molecular Medicine
2008 MSc	X. Wang	Pathology & Molecular Medicine
2009 mini-MSc (Chair)	J. Chen	Pathology & Molecular Medicine
2012 PhD	S. Fischer	Environmental Toxicology, Swiss Federal Institute of Aquatic Science & Technology (Switzerland)
2012 PhD	J. Park	Pharmacology & Physiology, Western University
2013 PhD	M. Chan	Pharmacology & Toxicology
2014 MSc (Chair)	L. Bathurst	Pathology & Molecular Medicine
2014 PhD (Chair)	X. Han	Biology
2015 PhD (Chair)	P. Ferrazzi	Rehabilitation Therapy
2015 MSc	M.A. Csandl	Biomedical & Molecular Sciences
2015 PhD	M.F. Miah	Pathology & Molecular Medicine
2016 PhD (Chair)	A. Felker	Anatomy & Cell Biology

2016 PhD (Chair)	L. Schumann	Psychology
2017 PhD (Chair)	M.J.-Y. Lee	Biochemistry (Biomedical & Molecular Sciences)
2017 mini-MSc (Chair)	J. Wong	Pathology & Molecular Medicine
2018 MSc	J.F. Power	Pathology & Molecular Medicine
2018 MSc	E.E. Smith	Pathology & Molecular Medicine
2018 PhD	M. Alnakhli	Molecular Medicine & Pathology, Flinders University (Australia)
2018 PhD (Chair)	A.C. Parr	Neuroscience
2019 PhD (Chair)	T.D. Vance	Biochemistry (Biomedical & Molecular Sciences)
2019 PhD (Chair)	J. Mackeil	Biomedical & Molecular Biosciences
2020 MSc	L. Wu	Pathology & Molecular Medicine
2021 PhD (Chair)	L. Haslam-Larmer	Aging and Health
2024 PhD	Y. Bin Kanner	University of Tel Aviv (Israel)

***PhD Comprehensive Exam Committees (since 1993):***

1993	M. Lundie	Pharmacology & Toxicology
1993	Z.-G. Lui	Pharmacology & Toxicology
1993	B. Savas	Microbiology & Immunology
1994	E. Rafeiro	Pharmacology & Toxicology
1995	P. Donnelly	Pharmacology & Toxicology
1996,1998,1999	G. Lafreniere	Pharmacology & Toxicology
1997	K. Kimura	Pharmacology & Toxicology
1997	K. Al-Batayneh	Biology
1998	A. Keightley	Pathology
1998	H. Liu	Pharmacology & Toxicology
1999	A. Tam	Pharmacology & Toxicology
1999	S. Wong	Pharmacology & Toxicology
1999	T. Bushfield	Pharmacology & Toxicology
2000	C. Davidson	Pathology
2000	T. Hale	Pharmacology & Toxicology
2001	L. Bedard	Pharmacology & Toxicology
2002	D. N��hm��	Microbiology & Immunology
2003	C. Paul	Microbiology & Immunology
2004	J. Wan	Pharmacology & Toxicology
2005	D. Richardson	Pathology & Molecular Medicine
2005, 2006	L. Mok	Pathology & Molecular Medicine
2007 (Chair)	J. Hannan	Pharmacology & Toxicology
2008	M. Komolova	Pharmacology & Toxicology
2008	H. Badham	Pharmacology & Toxicology
2008 (Chair)	M. Golder	Pathology & Molecular Medicine
2018 (Chair)	T. Azad	Pathology & Molecular Medicine
2018 (Chair)	J. Wong	Pathology & Molecular Medicine

***Thesis Advisory Committees (compiled since 2001):***

1995-2001	K. Al-Batayneh, PhD	Biology
1996-2001	A. Tam, PhD	Pharmacology & Toxicology

1997-2003	R. St. Onge, PhD	Pathology & Molecular Medicine
1997-2004	C. Westlake, PhD	Biochemistry
1998-2005	M. Muredda, PhD	Biochemistry
1999-2001	H. Dunkerley, MSc	Pharmacology & Toxicology
2000-2006	D. Nehmé, PhD	Microbiology & Immunology
2000-2004	L. Bedard, PhD	Pharmacology & Toxicology
2001-2002	K. Neumann, MSc	Biology
2001-2005	C. Paul, PhD	Microbiology & Immunology
2002-2007	J. Affleck, PhD	Biology
2002-2007	J. Wan, PhD	Pharmacology & Toxicology
2003-2005	S. Dowlatshahi, MSc	Pharmacology & Toxicology
2003-2009	D. Richardson, PhD	Pathology & Molecular Medicine
2003-2009	A. Theis, MSc	Pathology & Molecular Medicine
2004-2006	P. Wang, MSc	Physiology
2004-2008	G. Potter, PhD	Chemistry (co-supervisor)
2004-2010	M. Sierant, PhD	Biochemistry
2004-2010	L. Mok, PhD	Pathology & Molecular Medicine
2004-2011	E. Tung, PhD	Pharmacology & Toxicology
2004-2011 ( <i>incomplete</i> )	S. Wang, MSc	Pharmacology & Toxicology (co-supervisor)
2005-2007	P. Bandler, MSc	Pathology & Molecular Medicine
2005-2007	R. Singh, MSc	Pharmacology & Toxicology
2006-2009	A. Hampton, MSc	Pharmacology & Toxicology
2007-2012	A. Reid, MSc	Pharmacology & Toxicology
2008	R. Sullivan, PhD	Anatomy & Cell Biology
2010-2017	M. Crupi, PhD	Pathology & Molecular Medicine
2019-2021	S. Kheitan, MSc	Pathology & Molecular Medicine

## **INVITED PRESENTATIONS** (*career total 227*)

### **1980-90** (8)

- Laboratory of Molecular Carcinogenesis, Bldg. 37, NCI, NIH, Bethesda, MD, November 1980
- Department of Health and Human Services, Bldg. 10, NIH, Bethesda, MD, November 1980
- OCTRF, London Regional Cancer Centre, London, ON, September 1984
- OCTRF, Toronto-Bayview Centre, Sunnybrook Medical Centre, Toronto, October 1984
- Canadian Society of Laboratory Technologists, St. John's, NL, June 19, 1986
- Department of Radiation Oncology, Arizona Cancer Center, Tucson, AZ, January 21, 1988
- OCTRF Research Meeting, Ottawa Regional Cancer Centre, Ottawa, ON, May 15, 1989
- 3<sup>rd</sup> IASLC Lung Tumor Biology Workshop, Robinson College, Cambridge University, UK, August 1990

### **1991** (4)

- Merck-Frosst Award Lecture, 34<sup>th</sup> Annual Meeting of the Canadian Federation of Biological Societies, Kingston, ON, June 9, 1991
- Symposium on "Frontiers in Cancer Biology II: Lung Cancer", Cancer Center of the Medical College of Wisconsin, Milwaukee, WI, October 5, 1991
- CME Day, Division of Surgery Annual Clinical Day, Peterborough Civic Hospital and St. Joseph's General Hospital, Peterborough, ON, November 11, 1991

- Department of Biochemistry, University of Saskatchewan, Saskatoon, SK, November 26, 1991

**1992** (6)

- L'Hôtel Dieu de Québec, Centre de Recherche, Québec City, QC, March 13, 1992
- Terry Fox Workshop, Niagara-on-the-Lake, ON, March 25-27, 1992
- Samuel Lunenfeld Research Institute, Mount Sinai Hospital, Toronto, June 24, 1992
- Stritch School of Medicine, Loyola University Medical Center, Chicago, IL, October 2, 1992
- ISIS Pharmaceuticals, Carlsbad, CA, October 19, 1992 (with R. Deeley)
- Institute of Parasitology, McGill University, Montréal, QC, December 4, 1992

**1993** (17)

- London Regional Cancer Centre, London, ON, January 7, 1993
- Department of Biochemistry, University of Western Ontario, London, ON, January 8, 1993
- Department of Pharmacology, University of Ottawa, Ottawa, ON, January 12, 1993
- Department of Molecular Therapeutics, Memorial Sloan-Kettering Cancer Center, New York, NY, February 2, 1993
- Lederle Laboratories, Pearl River, NY, February 3, 1993
- BASF Laboratories, Cambridge, MA, February 10, 1993 (with R. Deeley)
- Citywide Oncology Rounds, The Toronto Hospital, University of Toronto, February 19, 1993 (with R. Deeley)
- City of Hope Medical Center, Duarte, CA, March 8, 1993
- Arizona Cancer Center, Tucson, AZ, March 9, 1993
- 4<sup>th</sup> IASLC Lung Tumor Biology Workshop, Airlie, VA, April 14, 1993
- General Motors Cancer Research Foundation International Symposium on "Resistance Against Anticancer Drugs: Molecular Mechanisms and Clinical Opportunities", Toronto, ON, May 7, 1993
- Symposium on "Molecular Mechanisms of Drug Resistance", 84<sup>th</sup> Annual Meeting of the American Association for Cancer Research, Orlando, FL, May 19, 1993
- 3<sup>rd</sup> International IASLC Workshop on "Lung Tumor Antigens and Differentiation Antigens", Zürich, Switzerland, September 9 and 10, 1993
- The Upjohn Company, Kalamazoo, MI, September 14, 1993
- National Cancer Center Research Institute & Hospital, Tokyo, Japan, November 12, 1993
- Current Progress on Drug Resistance, US-Japan Cooperative Agreement, Tokyo, Japan, November 15, 1993
- Manitoba Institute of Cell Biology, Winnipeg, MB, November 25, 1993, *Ortho Biotech Visiting Lecturer*

**1994** (11)

- Department of Cancer Biology, The Cleveland Clinic Foundation, Cleveland, OH, January 11, 1994
- Cleveland Clinic Cancer Center Ground Rounds, The Cleveland Clinic Foundation, Cleveland, OH, January 11, 1994
- Grand Rounds, Division of Hematology and Oncology, School of Medicine, Wayne State University, Detroit, MI, January 12, 1994
- Multidisciplinary Lung Cancer Conference, School of Medicine, Wayne State University, Detroit, MI, January 13, 1994
- BiochemPharma Inc., Montréal, QC, February 18, 1994 (with R. Deeley)

- 4<sup>th</sup> Winternational Symposium on Cellular and Molecular Biology, “The Molecular Biology of Membrane Proteins”, Banff, AB, March 11, 1994
- James Brown Cancer Center, Louisville, KY, March 28, 1994
- Toronto-Bayview Regional Cancer Centre, Sunnybrook Health Sciences Centre, Toronto, ON, May 24, 1994
- Gordon Research Conference on “Chemotherapy of Experimental and Clinical Cancer”, Colby Sawyer College, NH, July 26, 1994
- Joint Meeting of the American Association for Cancer Research and Academia Sinica on “Modern Developments in Cancer Therapeutics”, Taipei, Taiwan, November 8, 1994
- Genetic Therapy Institute, Gaithersburg, MD, December 20, 1994 (with R. Deeley)

**1995 (11)**

- Department of Biology, Concordia University, Montréal, QC, January 6, 1995
- INEX Pharmaceuticals, Vancouver, January 20, 1995 (with R. Deeley)
- Unité de santé et environnement, Laval University, Ste-Foy, Québec, February 2, 1995
- Departments of Pharmacology and Biochemistry, Wayne State University, Detroit, MI, May 5, 1995
- Oncor Diagnostics, Malvern, PA, June 15, 1995 (with R. Deeley)
- Eli Lilly Pharmaceutical Company, Indianapolis, IN, June 28, 1995 (with R. Deeley)
- Symposium on “Drug Resistance Issues in Cancer Chemotherapy”, 19<sup>th</sup> International Congress of Chemotherapy, Montréal, QC, July 17, 1995
- Lung Cancer: Strategies for the 21<sup>st</sup> Century, University of Toronto, Faculty of Medicine, Toronto, ON, September 29, 1995
- ISIS Pharmaceuticals, Carlsbad, CA, October 20, 1995 (with R. Deeley)
- American Association for Cancer Research Special Conference, “Novel Strategies Against Resistant Cancers”, Ft. Myers, FL, November 20, 1995
- University of Maryland Cancer Center, Baltimore, MD, November 30, 1995

**1996 (11)**

- Institute of Molecular and Cellular Biosciences, University of Tokyo, Japan, January 29, 1996
- Symposium on “Drug Resistance”, Department of Biochemistry, Kyushu University, Fukuoka, Japan, January 31, 1996 (*sponsor*: Monbusho International Scientific Research Program) (*plenary speaker*)
- Institute for Cancer Research, Kagoshima University, Kagoshima, Japan, February 1, 1996
- Gordon Research Conference on “Drug Carriers in Biology and Medicine”, Ventura, CA, February 25, 1996
- Loeb Research Institute, Ottawa, ON, March 25, 1996
- Johns Hopkins Oncology Centre, Baltimore, MD, May 6, 1996
- MRC Membrane Biology Group, University of Toronto, Toronto, ON, May 13, 1996
- Monsanto/Searle, St. Louis, MO, June 26, 1996
- Department of Chemistry and Biochemistry, University of Guelph, ON, September 25, 1996
- EORTC International Meeting “Anticancer Targets and Strategies for the Twenty-first Century”, Castres, France, October 10, 1996
- International Conference on “Glutathione and Glutathione-linked Enzymes in Human Cancer and Other Diseases”, Hilton Head, SC, November 1, 1996

**1997 (6)**

- Ontario Cancer Institute, Princess Margaret Hospital, Toronto, ON, January 9, 1997



- Hollings Cancer Center, Charleston, SC, January 24, 1997
- 2<sup>nd</sup> Annual John Doull Toxicology Symposium, Kansas City Medical Center, Kansas City, KS, May 9, 1997 (*Keynote Speaker*)
- Mini-symposium on “Dose Intensity and Drug Resistance in Lung Cancer”, 8<sup>th</sup> World Lung Cancer Conference, Dublin, Ireland, August 14, 1997
- Symposium on “Lung Cancer – New Aspects”, University of Vienna Medical School, Vienna, Austria, September 22, 1997 (*sponsor: Novartis*) (*plenary speaker*)
- 4<sup>th</sup> International Symposium on “Cytostatic Drug Resistance”, Humboldt University, Berlin, Germany, September 26, 1997

**1998 (9)**

- Molecular Therapeutics, Memorial Sloan Kettering Cancer Center, New York, NY, January 20, 1998
- Department of Microbiology & Immunology, University of Western Ontario, London, ON, January 29, 1998
- 8<sup>th</sup> Fisher Winternational Symposium on Cellular and Molecular Biology, “Membrane Proteins in Health and Disease”, Banff, AB, April 5, 1998
- Cancer Center, University of Illinois at Chicago, Chicago, IL, May 4, 1998
- Department of Pharmacology, University of Tennessee, Memphis, TN, May 6, 1998
- 10<sup>th</sup> NCI-EORTC Symposium on “New Drugs in Cancer Therapy”, Amsterdam, The Netherlands, June 16, 1998
- Symposium on “Multiple Drug Resistance Genes and Gene Transfer”, IUPHAR, XIIIth International Congress of Pharmacology, Munchen, Germany, July 27, 1998
- Eli Lilly Pharmaceutical Company, Indianapolis, IN, August 25, 1998 (with R. Deeley)
- SmithKline & Beecham, Collegeville, PA, September 15, 1998

**1999 (7)**

- 2<sup>nd</sup> FEBS Advanced Lecture Course, ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Disease, Gosau, Austria, February 24, 1999 (*plenary speaker*)
- C.W. Gowdey Distinguished Lectureship, Department of Pharmacology & Toxicology, University of Western Ontario, London, ON, March 18-19, 1999
- Meet the Expert Sunrise Session on “Drug Resistance”, 90<sup>th</sup> Annual Meeting of the American Association for Cancer Research, Philadelphia, PA, April 11, 1999
- Hematology – Oncology Division, Massachusetts General Hospital, Harvard Medical School, Boston, MA, May 7, 1999
- 2<sup>nd</sup> FASEB Conference on “Transport ATPases”, Snowmass, CO, July 7, 1999
- Symposium on “Drug Efflux Pumps: Challenges and Opportunities for Drug Delivery”, Annual Meeting of the American Association of Pharmaceutical Scientists, New Orleans, LA, November 15, 1999
- Roswell Park Cancer Institute, Buffalo, NY, December 14, 1999

**2000 (10)**

- Symposium on “Transporters in Host Defence Mechanisms”, Tokyo, Japan, January 19, 2000
- Department of Biochemistry, Kyushu University, Fukuoka, Japan, January 24, 2000
- Department of Clinical Pharmacology, Vanderbilt University School of Medicine, Nashville, TN, March 30, 2000

- Department of Pharmaceutical Sciences, St. Jude Children's Research Hospital, Memphis, TN, March 31, 2000
- Symposium on "Cytotoxic Chemotherapy: Marking the Transition to the New Millennium", 91<sup>st</sup> Annual Meeting of the American Association for Cancer Research, San Francisco, CA, April 4, 2000
- Division of Cell Biology, Hospital for Sick Children, Toronto, ON, May 12, 2000
- Gordon Research Conference on "Chemotherapy of Experimental and Clinical Cancer", Oxford, UK, September 19, 2000
- Faculty of Pharmacy, University of Toronto, ON, October 12, 2000
- Québec Breast Cancer Symposium, Montréal, QC, October 27, 2000
- Merck-Frosst Centre for Therapeutic Research, Montréal, QC, December 7, 2000 (with R. Deeley)

**2001** (6)

- Department of Tumour Biochemistry, German Cancer Center, Heidelberg, Germany, March 12, 2001
- Department of Drug Metabolism and Pharmacokinetics, Boehringer-Ingelheim Pharmaceuticals, Inc., Ridgeway, CT, April 17, 2001
- Symposium on "Biology of Cellular Invasiveness: Pathos of Convergence in Pregnancy and Malignancy", Queen's University, Kingston, ON, June 1, 2001
- 3<sup>rd</sup> FASEB Conference on "Transport ATPases", Snowmass, CO, July 18, 2001
- Symposium on "Childhood Cancer: From Mechanisms to Therapeutics", Children's Cancer Institute of Australia, Sydney, Australia, October 8, 2001 (*keynote speaker*)
- 33<sup>rd</sup> Meeting of the International Society of Paediatric Oncology (SIOP), Brisbane, Australia, October 11, 2001 (*keynote speaker*)

**2002** (10)

- Department of Biology, McMaster University, Hamilton, ON, January 31, 2002
- Department of Pharmacology, Hollings Cancer Center, Medical University of South Carolina, Charleston, SC, February 11, 2002
- Eli Lilly Pharmaceutical Company, Indianapolis, IN, February 15, 2002 (with R. Deeley)
- CSBMCB 45<sup>th</sup> Annual Meeting and 12<sup>th</sup> Winternational Symposium on "Membrane Proteins: Implications for Therapeutics", Banff, AB, March 24, 2002
- American Association for Cancer Research (AACR) 93<sup>rd</sup> Annual Meeting, San Francisco, CA, April 8, 2002
- Symposium on "Advances in Understanding Transport of Drugs and Toxicants", ASPET, Annual Meeting of the Societies of Experimental Biology, New Orleans, LA, April 23, 2002
- Symposium on "The Role of Transporters in Drug Metabolism", IUPHAR, XIV<sup>th</sup> International Congress of Pharmacology, San Francisco, CA, July 2002
- Department of Biochemistry, National University of Singapore, September 16, 2002
- Department of Surgery, Shinshu University School of Medicine, Matsumoto, Japan, September 20, 2002
- 22<sup>nd</sup> International Symposium "Xenobiotics and Host Responses" of the University of Occupational and Environmental Health, Kitakyushu, Japan, September 24, 2002

**2003** (8)

- Joint Meeting – Symposium on "ABC Proteins" and the 5<sup>th</sup> Conference on "ABC Proteins and Ion Channels – From Gene to Disease", Kyoto, Japan, January 25, 2003
- Faculty of Pharmaceutical Sciences, Kanazawa University, Japan, January 28, 2003

- 4<sup>th</sup> FEBS Advanced Lecture Course “ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Disease”, Gosau, Austria, March 4, 2003
- Gordon Research Conference on “Multi-Drug Efflux Systems”, Ventura, CA, March 10, 2003
- Grand Rounds, H. Lee Moffitt Cancer Center & Research Institute, Tampa, FL, April 25, 2003 (*CME credit*)
- Northeastern Ontario Regional Cancer Centre (NEORCC), Sudbury, ON, June 6, 2003
- Nuffield Department of Clinical Laboratory Sciences, John Radcliffe Hospital, Oxford University, Oxford, UK, August 21, 2003
- Auckland Cancer Society Research Center, University of Auckland, New Zealand, October 31, 2003

**2004** (13)

- Institute of Parasitology, MacDonald Campus, McGill University, Ste. Anne de Bellevue, QC, January 30, 2004
- ASPET Symposium on “Toxicological and Health Implications of GSH Transport and Metabolism”, Experimental Biology 2004, Washington, DC, April 18, 2004
- Laboratory of Cell Biology, NCI, NIH, Bethesda, MD, April 20, 2004
- Department of Pharmaceutical Sciences, University of Toronto, ON, April 23, 2004
- Department of Biopharmaceutical Sciences, University of Illinois at Chicago, Chicago, IL, April 28, 2004
- Indiana University Cancer Center, Indianapolis, IN, April 29, 2004
- Department of Biopharmaceutical Sciences, Pharmaceutical Sciences & Pharmacogenomics Graduate Program, University of California at San Francisco, San Francisco, CA, May 12, 2004
- Institut de Recherches Servier, Croissy sur Seine, France, June 9, 2004
- 9th Symposium of the Institut de Chimie des Substances Naturelles (ICSN), “Cancer: Targets, Molecules and Therapies”, CNRS, Gif-sur-Yvette, France, June 11, 2004
- Department of Pharmacology, Cambridge University, UK, July 12, 2004
- H. Lee Moffitt Cancer Center & Research Institute - 3rd Biennial Meeting “Molecular Targets for Cancer Therapy”, St. Petersburg Beach, FL, October 5, 2004 (*CME credit*)
- ABC Gene Workshop, NCI-NIH, Frederick, MD, October 21, 2004
- Department of Medical Sciences-Oncology, Cross Cancer Institute, University of Alberta, Edmonton, AB, November 1, 2004

**2005** (10)

- 2nd Korean Pharmacogenomic Research Network International Symposium, Seoul, Korea, March 18, 2005 (*declined*)
- Markey Cancer Center Distinguished Visitor, University of Kentucky, Lexington, KY, April 28, 2005
- Division of Drug Delivery and Disposition, School of Pharmacy, University of North Carolina, Chapel Hill, NC, May 6, 2005
- 13th Meeting on Pollution Responses in Marine Organisms, Alessandria, Italy, June 19, 2005 (*plenary lecturer*)
- VI<sup>th</sup> Conference on Cerebral Vascular Biology, CVB 2005, Münster, Germany, June 25-29, 2005 (*declined*)
- John Roder 25th Anniversary Symposium, Mount Sinai Hospital, Toronto, ON, June 25, 2005.

- 12th Annual MDIBL Environmental Health Sciences Symposium, “Molecular Evolution of Chemical Defense Mechanisms”, Mount Desert Island Biological Laboratory, Salisbury Cove, ME, July 14, 2005
- Symposium on “Mechanisms of ABC Transporters”, BioScience 2005 - Biochemical Society 2nd Major Annual Scientific Meeting, Glasgow, UK, July 21, 2005 (*declined*)
- 2nd Annual North American ABC Genetic Workshop, NCI-NIH, Frederick, MD, September 29, 2005
- Robert L. Noble Award Lecture, Queen’s University, Kingston, ON, November 16, 2005 (with R. Deeley)

**2006 (9)**

- Keystone Symposium, “Eicosanoids in Inflammation and Chronic Diseases”, Park City, UT, January 11, 2006 (*CME credit*)
- Translational Cancer Research Unit, University of Western Ontario, London, ON, January 19, 2006 (*CME credit*)
- FEBS Special Meeting on ABC Proteins - ABC 2006, Innsbruck, Austria, March 9, 2006 (*Final Keynote address*)
- Merck Research Laboratories, Westpoint, PA, April 18, 2006
- Merck Research Laboratories, Rahway, NJ, April 19, 2006
- Gordon Research Conference on “Mechanisms of Toxicity”, Colby College, Waterville, ME, July 25, 2006.
- MDR1-20 Symposium, National Cancer Institute, National Institutes of Health, Bethesda, MD, September 20, 2006.
- Department of Pharmacology, Yonsei University College of Medicine, Seoul, Korea, December 14, 2006
- The 3rd International Symposium of Korea Biomedical Genomic Research Association and National Genome Research Institute, Seoul, Korea, December 15, 2006

**2007 (8)**

- Royal Society of Canada Kingston Regional Seminar, Queen’s University, March 31, 2007
- Mayo Clinic College of Medicine, Scottsdale, AZ, May 3, 2007
- Symposium on “Transporters and Barrier Function”, 7th Cerebral Vascular Biology (CVB 2007) International Conference, Ottawa, ON, June 25, 2007 (*declined*)
- Workshop on “Drug Transport to the Fetus”, 13th International Federation of Placenta Associations (IFPA) & 2nd Placenta Association of the Americas Conference, Kingston, ON, August 18, 2007 (*declined*)
- National Institute of Environmental Health Sciences (NIEHS), U.S. National Institutes of Health (NIH) Distinguished Lecture Series, Research Triangle Park, NC, September 11, 2007
- International Meeting on “ABC Transport Proteins in Environmental Health and Toxicology”, Siena, Italy, October 20, 2007 (*plenary speaker*)
- Symposium on “Novel Interventions Preventing Treatment Failure”, *Making Connections: A Canadian Cancer Research Conference Celebrating NCIC’s 60th Anniversary*, Toronto, ON, November 16, 2007 (*CME credit*)
- College of Pharmacy, University of Arizona, Tucson, AZ, November 27, 2007

**2008 (10)**

- Science Research for Health Day, CIHR Synapse Youth Mentorship, University of Ontario Institute of Technology (UOIT), Oshawa, ON, February 18, 2008 (*keynote speaker*) (*declined*)

- Symposium on “ABC Proteins in Multidrug Resistance and Pharmacology”, 2nd FEBS Special Meeting: ATP-Binding Cassette (ABC) Proteins: from Multidrug Resistance to Genetic Diseases, Innsbruck, Austria, March 4, 2008 (*plenary speaker*)
  - ASPET Centennial Symposium on “ABC Transporters: From Drug Resistance to Drug Response”, Experimental Biology 2008, San Diego, CA, April 8, 2008
  - ASPET Symposium on “Drug Metabolism, Bioactivation and Chemical-induced Toxicities: Lessons Learned and Contemporary Issues”, Experimental Biology 2008, San Diego, CA, April 8, 2008
  - Symposium on “Pharmacogenomics of Drug Disposition”, 5th International Symposium of KPGRN and 14th Annual Meeting of PRACP, Busan, Korea, April 9-11, 2008 (*declined*)
  - Grand Rounds, Department of Clinical Pharmacology, Schulich School of Medicine & Dentistry, University of Western Ontario, London, ON, May 29, 2008 (*CME credit*)
  - Gordon Research Conference on Drug Metabolism, Plymouth, NH, July 6-11, 2008 (*declined*)
  - Pfizer Senior Scientist Award Lecture, CPT2008, Québec, QC, July 28, 2008
  - Symposium on “Transporters: Relevance to Drug Disposition and Disease”, IXth World Conference on Clinical Pharmacology and Therapeutics (CPT2008), Québec, QC, July 30, 2008
  - Symposium on “Glutathione Transferases”, Uppsala University, Sweden, August 21, 2008
- 2009 (5)**
- Shinshu University, Matsumoto, Japan, May 22, 2009 (*cancelled H1N1*)
  - The 5th Takeda Science Foundation Symposium in PharmaSciences, “Bioactive Lipid Molecules and Transporters”, Tokyo, Japan, May 26, 2009
  - Fourth iCeMS International Symposium on Integrated Cell-Material Sciences, “Integrated Physical/Chemical Biology of the Cell: from Genes to Membrane Systems”, Kyoto, Japan, May 28, 2009
  - Membrane Protein Research Group, University of Alberta, Edmonton, AB, October 22, 2009 (*CME credit*)
  - Department of Pharmacology and Therapeutics, University of Calgary, Calgary, AB, October 23, 2009
- 2010 (4)**
- 3<sup>rd</sup> FEBS Special Meeting, “ATP-Binding Cassette (ABC) Proteins: from Multidrug Resistance to Genetic Diseases”, Innsbruck, Austria, March 4, 2010
  - Symposium on “Transporter Biology: Impact on Drug Distribution and Organ Toxicity”, Gordon Research Conference on Drug Metabolism, Holderness, NH, July 15, 2010
  - Symposium on “Multidrug Resistance and Transporters”, Joint Meeting of the Australian Society for Biophysics and Australian Physiological Society, Adelaide, Australia, November 29, 2010
  - Children’s Cancer Institute Australia, Sydney, Australia, December 9, 2010
- 2011 (6)**
- Visiting Professor Program, Medical University of South Carolina (MUSC) Hollings Cancer Center, Charleston, SC, February 11, 2011
  - Symposium on “Frontiers in Epithelial Transport 2011”, Yonsei University, Seoul, Korea, April 15, 2011
  - Dept. of Pharmaceutical Oncology, Kyushu University, Fukuoka, Japan, April 18, 2011
  - Institute for Integrated Cell-Material Sciences, Kyoto University, Japan, April 22, 2011

- Institute for Cancer Research, University of North Texas Health Science Center, Fort Worth, TX, May 4, 2011 (*declined*)
- Gordon Research Conference on Multidrug Efflux Systems, Les Diablerets, Switzerland, June 12-17, 2011 (*declined*)

**2012** (5)

- 4<sup>th</sup> FEBS Special Meeting, “ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Diseases”, Innsbruck, Austria, March 8, 2012 (*Final Keynote address*)
- Institute of Enzymology, Hungarian Academy of Sciences, Budapest, Hungary, May 7, 2012
- Department of Environmental Toxicology, Swiss Federal Institute of Aquatic Science and Technology, Dübendorf, Switzerland, May 9, 2012
- Canadian Medical Hall of Fame TD Discovery Day in Health Sciences, Queen’s University, Kingston, ON, May 16, 2012 (*Keynote Speaker*)
- Conference on “Membrane Transporters and Their Role in Human Disease”, University of New South Wales, Sydney, Australia, December 6, 2012 (*declined*)

**2013** (5)

- Department of Pharmaceutics, School of Pharmacy, University of Washington, Seattle, WA, June 27, 2013
- European Union Conference “Role of MDR Proteins in Pharmacokinetics and Toxicology”, Ryn, Poland, September 3, 2013 (*Keynote Speaker*)
- 6<sup>th</sup> Annual SFB35 Symposium “Transmembrane Transporters in Health and Disease”, Vienna, Austria, September 23, 2013
- College of Pharmacy, Jinan University, Guangzhou, PRC, November 11, 2013
- First Affiliated Hospital, Jinan University, Guangzhou, PRC, November 12, 2013

**2014** (2)

- University of Lodz, Poland, September 12, 2014
- Jinan University Clinical Medical Research Institute, Guangzhou, PRC, November 5, 2014

**2015** (4)

- 6th Annual Hogarty Family Foundation Lecture, University at Albany Cancer Research Center, Albany, NY, March 26, 2015
- Department of Biomedical Sciences, University at Albany SUNY, Albany, NY, March 27, 2015
- Conference on Tumor Multidrug Resistance, College of Pharmacy, Jinan University, Guangzhou, PRC, November 7, 2015 (*Keynote Speaker*)
- Department of Physiology, McGill University, Montréal, QC, December 4, 2015

**2016** (4)

- Advanced Medical Research Institute of Canada, Northeast Cancer Centre – Health Sciences North, Sudbury, ON, May 9, 2016
- Symposium: Celebrating 30 Years of Research on Multidrug Resistance and ABC Drug Transporters, National Cancer Institute, NIH, Bethesda, MD, September 23, 2016
- American Society of Nephrology Annual Meeting, Session on “Predicting Drug Disposition and Dosing in CKD: Not just a renal affair”. Chicago, IL, November 15-20, 2016 (*declined*)
- Symposium: Basic and Clinical Studies of ABC Transporters, College of Pharmacy, Jinan University, Guangzhou, PRC, November 7, 2016 (*Keynote Speaker*)

**2017** (8)

- John Austin Society, Kingston, ON, January 19, 2017

- Gordon Research Conference on Multidrug Efflux Systems, Galveston, TX, March 26, 2017 (*Keynote Speaker*)
- Saturday Club, Queen's University, Kingston, ON, May 2, 2017
- Department of Biochemistry, University of Alberta, Edmonton, AB, September 21, 2017
- Symposium, College of Pharmacy, Jinan University, Guangzhou, Guangdong, PRC, November 5, 2017 (*Keynote Speaker*)
- Symposium, Cancer Research Institute, Central South University, Changsha, Hunan, PRC, November 8, 2017 (*Keynote Speaker*)
- Institute of Hydrobiology, Wuhan, Hubei, PRC, November 10, 2017
- Program in Cancer and Stem Cell Biology, Duke-NUS Medical School, Singapore, November 13, 2017

**2018** (3)

- 61<sup>st</sup> Annual Meeting of the Canadian Society of Molecular Biosciences, Banff, AB, April 13, 2018
- Department of Pharmacology, Center of Drug Absorption and Transport, University Medicine Greifswald, Greifswald, Germany, June 18, 2018
- Symposium, Jinan University, Guangzhou, Guangdong, PRC, November 9, 2018 (*Keynote Speaker*)

**2019** (1)

- Department of Biochemistry, Immunology & Microbiology, University of Ottawa, September 13, 2019

**2020** (4)

- Department of Biochemistry and Molecular Biology, Tel Aviv University, Israel, March 12, 2020 (*cancelled – COVID-19*)
- Jeanne Manery Fisher Memorial Lecture Award, 63rd Annual Meeting of the Canadian Society of Molecular Biosciences, Ottawa, ON, June 10, 2020 (*cancelled – COVID-19*)
- Gordon Research Conference on Drug Metabolism, Holderness, NH, July 12-17, 2020 (*cancelled – COVID-19*)
- Symposium, Jinan University, Guangzhou, Guangdong, PRC, November 2020 (*Keynote Speaker*) (*cancelled – COVID-19*)

**2021** (1)

- Gordon Research Seminar on Multidrug Efflux Systems, Galveston, TX, May 29-30, 2021 (*Keynote Speaker*) (*declined – COVID-19*)

**2022** (1)

- Gordon Research Conference on Drug Metabolism “50<sup>th</sup>” Anniversary, Holderness, NH, July 10-15, 2022

**2024** (1)

- Gordon Research Conference Ligand Recognition and Molecular Gating, Ventura, CA, March 24-28, 2024 (*declined*)

**Internal:**

- Department of Oncology, Kingston Regional Cancer Centre, 1982
- Department of Pharmacology, Queen's University, 1983
- Department of Microbiology & Immunology, Queen's University, 1983
- Medical Grand Rounds, Cancer & Interferons, March 14, 1985 (*with E. Eisenhower*)

- Department of Oncology, Kingston Regional Cancer Centre, October 24, 1985 (*with B.G. Campling*)
- Department of Biochemistry, Queen's University, November 29, 1985
- Department of Oncology, Kingston Regional Cancer Centre, April 17, 1986
- Department of Oncology, Kingston Regional Cancer Centre, April 2, 1987
- Basmajian Award Lecture, Queen's University, April 28, 1988
- Department of Pathology, Queen's University, January 24, 1989
- Department of Pharmacology & Toxicology, Queen's University, October 2, 1989
- Department of Microbiology & Immunology, Queen's University, February 26, 1992
- Department of Oncology, Queen's University, January 14, 1993
- Department of Biochemistry, Queen's University, February 26, 1993
- Kingston Regional Cancer Centre, "Cancer '93 – Challenges for Care and Cure", October 20, 1993
- Department of Pharmacology & Toxicology, Queen's University, October 17, 1994
- Workshop, School of Graduate Studies and Research, "The Challenges of Balancing Family Commitments and a Research Intensive Career – Costs and Rewards", January 25, 1995
- Prize for Excellence in Research Lecture, Queen's University, November 27, 1995
- Department of Physiology, Queen's University, September 30, 1996
- Department of Chemistry, Queen's University, February 24, 1997
- Presentation to MRC Council, "Drug Resistance in Cancer: From Bench to Bedside and Back Again", November 24, 1997 (*with B.G. Campling and R.G. Deeley*)
- Department of Microbiology & Immunology, Queen's University, February 4, 1998
- Education Seminar, Queen's University Biomedical Engineering Club, January 15, 2003
- Department of Pharmacology & Toxicology, Queen's University, March 23, 2004

### **CONFERENCES – INVITED PARTICIPATION** (*other than as a speaker*)

#### **1984-1993**

- Co-Chair, Monoclonal Antibodies Workshop; Canadian Federation of Biological Societies, Saskatoon, June 1984
- Co-Chair, Session on Monoclonal Antibodies and Lung Cancer – Biology III. IV World Conference on Lung Cancer, Toronto, August, 1985
- Organizer and Co-Chairperson, Ontario Cancer Foundation Research Meeting, Donald Gordon Centre, Kingston, October 15-16, 1987
- Chair, Session on Multidrug Resistance, Gordon Research Conference on "Chemotherapy of Clinical and Experimental Cancer, July 1989
- Organizer and Chair, Symposium on "Resistance to Antineoplastic Agents", Pharmacological Society of Canada, Canadian Federation of Biological Societies, Kingston, June 9, 1991
- Co-Chair, Minisymposium on "New Mechanisms of Drug Resistance", 83<sup>rd</sup> Annual Meeting of the American Association for Cancer Research, San Diego, CA, May 21, 1992
- Co-Chair, Session on Cluster Analysis, 3<sup>rd</sup> International IASLC Workshop on Lung Tumor and Differentiation Antigens, Zürich, September 9, 1993

#### **1994-2003**

- Co-Chair, Poster Discussion Session on P-glycoprotein, 84<sup>th</sup> Annual Meeting of the American Association for Cancer Research, San Francisco, CA, April 10, 1994



- Co-Chair, Symposium on “Drug Resistance Issues in Cancer Chemotherapy”, 19<sup>th</sup> International Congress of Chemotherapy, Montréal, July 17, 1995
- Co-Chair, Poster Discussion Session on Biology of MRP, 86<sup>th</sup> Annual Meeting of the American Association for Cancer Research, Washington, DC, April 23, 1996
- Co-Chair, Session on GSH/GST, Other Thiols and Thiol-proteins in Drug Resistance, International Conference on “Glutathione and Glutathione-linked Enzymes in Human Cancer and Other Diseases”, Hilton Head, SC, November 1, 1996
- Co-Chair, Session on Biology of Lung Cancer, 8<sup>th</sup> World Conference on Lung Cancer, Dublin, Ireland, August 14, 1997
- Chair, Session on Non-MDR Mechanisms of Drug Resistance, 4<sup>th</sup> International Symposium on “Cytostatic Drug Resistance”, Berlin, Germany, September 25, 1997
- Chair, Session on Cancer Research and Therapy, 1<sup>st</sup> Annual Meeting for Basic and Clinical Research Trainees, Faculty of Health Sciences, Queen’s University, Kingston, May 27, 1998
- Co-Chair and Organizer, Symposium on “Cytotoxic Chemotherapy: Marking the Transition to the New Millennium”, 91<sup>st</sup> Annual Meeting of the American Association for Cancer Research, San Francisco, CA, April 4, 2000
- Adjudicator, Oral Presentations, 3<sup>rd</sup> Annual Meeting for Basic and Clinical Research Trainees, Faculty of Health Sciences, Queen’s University, Kingston, May 31, 2000
- Co-Moderator, Session on Genomics and Novel Therapeutics, Canadian Lung Cancer Research Workshop, Toronto, June 16-17, 2000
- Chair, Session on Drug Resistance, Gordon Research Conference on “Chemotherapy of Clinical and Experimental Cancer”, Oxford, UK, September 19, 2000
- Chair, Symposium on “Functions, Substrates, Mechanisms & Clinical Implications of MRPs, MXR and BSEP”, FEBS Advanced Lecture Course – ABC 2001, Gosau, Austria, March 7, 2001
- Co-Chair, Symposium on “The Role of Transporters in Drug Metabolism”, IUPHAR, XIV<sup>th</sup> International Congress of Pharmacology, San Francisco, CA, July 8, 2002
- Co-Chair, Session on Transporters of Xenobiotics, 22<sup>nd</sup> International Symposium on “Xenobiotics and Host Responses”, Kitakyushu, Japan, September 24, 2002
- Member, Professional Advancement Series Session, “How to Get Your Papers Published in the Best Scientific Journals: The Insiders’ View from the Editors”, 94<sup>th</sup> Annual Meeting of the American Association for Cancer Research, Washington, DC, July 2003
- Member, “Women in Cancer Research” (WICR) Networking Breakfast, 94<sup>th</sup> Annual Meeting of the American Association for Cancer Research, Washington, DC, July 13, 2003

**2004-2013**

- Co-Chair, Minisymposium on “Novel Mechanisms of Drug Resistance and Functional Characterization”, 95<sup>th</sup> Annual Meeting of the American Association for Cancer Research, Orlando, FL, March 29, 2004
- Chair, Session on “Natural Products and Anticancer Drugs”, 9<sup>th</sup> Symposium of the Institut de Chimie des Substances Naturelles (ICSN), “Cancer: Targets, Molecules and Therapies”, Gif-sur-Yvette, France, June 10, 2004
- Discussion Leader, Gordon Research Conference on “Multi-Drug Efflux Systems”, Magdalen College, Oxford University, UK, September 2005 (*declined*).
- Co-Organizer, FEBS Special Meeting - ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Disease, Innsbruck, Austria, March 4-10, 2006

- Co-Chair, 2007 Gordon Research Conference on “Multi-Drug Efflux Systems”, 2005-2006 (*elected*).
- Co-Organizer, FEBS Special Meeting - ATP-Binding Cassette (ABC) Proteins - ABC2008, Innsbruck, Austria, March 1-8, 2008.
- Speaker (and Co-Chair), Session on “Predicting and Preventing Drug Resistance”, AACR Centennial Conference: Translational Cancer Medicine 2008: Cancer Clinical Trials and Personalized Medicine, Monterey, CA, July 22, 2008 (*declined*)
- Chair, Session on “ABCC Proteins in Cystic Fibrosis and Drug Resistance”, 5th Annual North American ABC Gene Meeting, NCI-NIH, Frederick, MD, September 25, 2008
- Representative, 20th EORTC-NCI-AACR Scientific Committee for the Molecular Targets and Cancer Therapeutics symposium in Geneva, Switzerland, October 21-24, 2008
- Discussion Leader, Session on “MDR Efflux Pumps in Cell Biology”, Gordon Research Conference on “Multi-Drug Efflux Systems”, Galveston, TX, March 24, 2009
- Co-Organizer, FEBS Special Meeting – ABC2010, Innsbruck, Austria, February 27-March 6, 2010
- Discussion Leader, Session on “Transporter Biology: Impact on Drug Distribution and Organ Toxicity”, Gordon Research Conference on “Drug Metabolism”, Holderness, NH, July 15, 2010
- Co-Organizer, FEBS Special Meeting - ABC2012, Innsbruck, Austria, March 3-9, 2012

#### **2014-present**

- Co-Organizer, ABC2014 Special Meeting, Innsbruck, Austria, March 8-14, 2014
- Chair, Session on “ABC Proteins and Drug Disposition”, ABC2014 Special Meeting, Innsbruck, Austria, March 13, 2014
- Discussion Leader, Session on “Functional Interactions between Influx and Efflux Transporters in Health and Clinical Conditions”, Gordon Research Conference on “Multi-Drug Efflux Systems”, Barga, Lucca, Italy, April 27, 2015
- Co-Organizer, Conference on MDR in Tumors, Jinan University College of Pharmacy, Guangzhou, PRC, 7 November 2015
- Co-Organizer, Special Meeting - ABC 2016, Innsbruck, Austria, March 5-11, 2016
- Chair, Session on “ABC Proteins and Xenobiotic Disposition”, Special Meeting - ABC 2016, Innsbruck, Austria, March 10, 2016
- Co-Chair, ASPET President’s Symposium on “Precision Medicine in Anti-Cancer Pharmacotherapy”, Experimental Biology 2016 Annual Meeting, San Diego, CA, April 3, 2016
- Session Chair, Symposium: Celebrating 30 Years of Research on Multidrug Resistance and ABC Drug Transporters, National Cancer Institute, NIH, Bethesda, MD, September 23, 2016
- Co-Organizer, Symposium: Basic and Clinical Studies of ATP-Binding Cassette Transporters, Jinan University, Guangzhou, PRC, November 2016
- Co-Organizer, Symposium: Basic and Clinical Studies of ATP-Binding Cassette Transporters, Jinan University, Guangzhou, PRC, November 2017
- Co-Organizer, ABC2018 FEBS Special Meeting, Innsbruck, Austria, March 6-12, 2018
- Co-Organizer & Co-Chair, ASPET Symposium on “Can Metabolic Vulnerabilities in Tumors be Therapeutically Exploited?”, Experimental Biology 2018 Annual Meeting, San Diego, CA, April 24, 2018
- Co-Organizer, Workshop on ABC Membrane Proteins in Human Physiology and Disease, Jinan University, Guangzhou, PRC, 9 November 2018

- Discussion Leader, Session on “Learning from Drug Resistance Across Diseases”, Gordon Research Conference on “Multi-Drug Efflux Systems”, Barga, Lucca, Italy, April 28 –May 3, 2019 (*declined*)
- Co-Organizer, ABC2023 FEBS Special Meeting, Innsbruck, Austria, March 6-10, 2023

## **SERVICE & ADMINISTRATION**

### **COMMITTEES – Academic:**

#### ***External:***

- Scientific Officer, National Cancer Institute of Canada, Grants Panel B (Cell Biology and Metastasis), 1989
- Member, National Cancer Institute of Canada, Grants Panel G (Pharmacology, Carcinogenesis, Chemistry), 1991, 1992
- Member, Medical Research Council of Canada Strategic Planning Committee, 1992
- Member, OCTRF Selection Committee for Chief Executive Officer of the Kingston Regional Cancer Centre, 1992
- Member, Program Committee, Preclinical Pharmacology/Experimental Therapeutics Subcommittee, American Association for Cancer Research 1992-1993
- Member, John Charles Polanyi Prizes Selection Committee, Ontario Council on Graduate Studies, 1993-1995
- Member, Special Memberships Committee, American Association for Cancer Research, 1993-1994
- Member, Canadian Scientific Advisory Committee, 19<sup>th</sup> International Congress of Chemotherapy, 1993-1995
- Member, Awards Committee, Cain Subcommittee, American Association for Cancer Research, 1994-1995
- Chair, Medical Research Council of Canada Site Review Team, Toronto, March 23, 1995
- Chair, Preclinical Pharmacology/Experimental Therapeutics Subcommittee, Program Committee, American Association for Cancer Research, 1995-1996
- Councillor, Pharmacological Society of Canada, 1995-1998
- Chair, John Charles Polanyi Prizes Selection Committee, Ontario Council on Graduate Studies, 1995-1996
- Member, Medical Research Council of Canada, Grants Committee Cancer “B”, 1995-1998
- Member, Ontario Graduate Scholarship Selection Panel (Pharmacology & Pharmacy), 1996
- Member, Awards Committee, Cain Subcommittee, American Association for Cancer Research, 1996-1997
- Member, Sustaining Membership Committee, American Association for Cancer Research, 1996-1997
- Chair, Cain Memorial Award Committee, American Association for Cancer Research, 1997
- Member, Ontario Graduate Scholarship Selection Panel (Human Biology), 1997
- Member, Canadian Breast Cancer Research Initiative Review Panel for Unconventional/Alternate Therapies, National Cancer Institute of Canada, 1997-1998
- Member, Site Review Team, Laboratory of Nutrition and Molecular Regulation, National Institutes of Health, Frederick, MD, April 27-29, 1998
- Member, Advisory Committee on Research (ACOR), National Cancer Institute of Canada, 1998-2001

- Member, Education Committee, American Association for Cancer Research, 1998-1999
- Member, ACOR Subcommittee for Travel Awards, National Cancer Institute of Canada, 1998-2001
- Member, Research Advisory Committee, Cancer Care Ontario (CCO), 1998-2003
- Member, NCI-NIH Site Review Team, Moffitt Cancer Center, Tampa, FL, January 27-28, 1999
- Member, Program Committee, AACR-NCI-EORTC Conference on Molecular Targets and Cancer Therapeutics, 1999
- Member, Genomics Initiative Advisory Board, Ontario Research and Development Challenge Fund (ORDCF), 1999-2001
- Member, Scientific Advisory Board, FEBS Advanced Lecture Course – ABC 2001, Gosau, Austria, 2000-2001
- Member, Oversight Committee, Centre for Behavioural Research and Program Evaluation, National Cancer Institute of Canada, 2000-2002
- Member, Working Group, Highway to Life, Ontario Ministry of Energy, Science and Technology, 2000
- Member, Bruce F. Cain Memorial Award Selection Committee, American Association for Cancer Research, 2001
- Vice-Chair, Committee on Research, National Cancer Institute of Canada, 2001-2002
- Member, Annual Meeting Program Committee, American Association for Cancer Research, 2001-2002, 2007-2008
- Member, Scientific Advisory Board, Eli Lilly Canada-Cancer Care Ontario, Ontario Senior Fellow/Clinician Scientist Award, 2001-2002
- Member, Pezcoller Foundation – AACR Award Selection Committee, 2002
- Member, Scientific Advisory Board, FEBS Advanced Lecture Course, 2002-2006
- Member, Nominating Committee, American Association for Cancer Research, 2002-2004 (*elected*)
- Member, Nominating Committee, PARTEQ Innovations Inc., Kingston, ON, 2002-2004
- Member, SCOR Grant Advisory Committee, Department of Pharmaceutics, University of Washington, Seattle, WA, 2003-2006
- Member, Canada Research Chairs Program, College of Reviewers, 2003-present
- Member, External Advisory Board, Roswell Park Cancer Institute (RPCI), Buffalo, NY, 2004-2009
- Member, Human Resources Committee, PARTEQ Innovations Inc., Kingston, ON, 2004-2006
- Member, National Cancer Institute of Canada (NCIC) Awards of Excellence Selection Committee, 2006, 2007, 2008
- Member, Flavelle Medal Committee, Royal Society of Canada, 2007-2008, 2010
- Member, International Affairs Committee, American Association for Cancer Research, 2007-2010
- Member, Program Committee, Experimental and Molecular Therapeutics Section, American Association for Cancer Research, 2007-2008
- Member, Scientific Committee, 20th EORTC-NCI-AACR Symposium on “Molecular Targets and Cancer Therapeutics”, 2008
- Member, Awards Committee, Canadian Society of Pharmacology & Therapeutics, 2008-2010

- Member, Gairdner Foundation Medical Review Panel, 2009-2010
- Member, Fellowships – Post-PhD Committee, Canadian Institutes of Health Research (CIHR), 2009-2010
- Member, Terry Fox Research Institute Program Project Grant Steering Committee on Research Excellence (PPG SCORE), 2013-2017
- Member, Expert Panel, European Union Project, “Role of multidrug transporters in pharmacokinetics and toxicology – in vitro tests in pharmaceutical and clinical practice”, Ryn, Poland, September 2-3, 2013
- Councillor, International Transmembrane Transporter Society (ITTS), 2014-2018
- Chair, Division for Cancer Pharmacology, American Society of Pharmacology and Experimental Therapeutics (ASPET), 2015-2017 (*inaugural*)
- Member, Council of Division Chairs, American Society of Pharmacology and Experimental Therapeutics (ASPET), 2015-2017
- Member, ASPET Annual Meeting Program Committee, 2015-2017
- Member, Selection Committee, AACR Award for Outstanding Achievement in Chemistry in Cancer Research, American Association for Cancer Research, 2015-17
- Member, Board of Directors, American Association for Cancer Research International - Canada, 2016-2019
- Past-Chair, Division for Cancer Pharmacology, American Society of Pharmacology and Experimental Therapeutics (ASPET), 2017-2019
- Member, Drug Discovery Scientific Advisory Committee, Ontario Institute for Cancer Research, 2023-2026

***Internal - University/Faculty:***

- Member, University Biohazards Committee, 1986-1989; 1989-1990
- Member, Principal’s Search Committee, Dean of Graduate Studies and Research, 1988-1989
- Member, Committee on Women in Science and Engineering, 1989
- Member, Search Committee, Director of the Animal Care Service, 1990
- Member, Council of the School of Graduate Studies and Research, 1990-1993
- Member, Review Committee, Joseph S. Stauffer Research Professor of Pathology, 1992
- Member, Search Committee for Co-Director, Investigational New Drugs Program, NCIC Clinical Trials Group, 1993
- Member, Strategic Planning Steering Committee, Faculty of Medicine, 1994-1995
- Member, Principal’s Search Committee, Vice-Principal, Research, 1994-1995
- Member, Adjudication Committee, Principal’s Development Fund, 1995
- Member, Faculty of Medicine, Graduate Studies and Research Committee, 1995-1996
- Member, Search Committee for Co-Director Investigational New Drugs Program, NCIC Clinical Trials Group, 1996
- Member, Vice-Principal Research Committee on Policy for Research Grants, Contracts and Consulting Activities, 1997
- Member, Search Committee, Head of Community Health & Epidemiology, 1997
- Member, Search Committee, Bader Chair in Organic Chemistry, 1997
- Member, Research Advisory Committee, Faculty of Health Sciences, 1998
- Member, Principal’s Search Committee, Vice-Principal, Research, 1999-2000
- Member, Principal’s Review Committee, Dean of Faculty of Health Sciences, 2000

- Member, Scientific Management Committee, Protein Function Discovery Facility, Faculty of Health Sciences, 2000-unk
- Member, Advisory Committee on the Establishment of a Cancer Research Institute, Faculty of Health Sciences, 2000-2001
- Member, Chancellor's Research Award Committee, 2001, 2002
- Member, Microarray Laboratory Management Committee, 2001-2005
- Member, Vice-Principal Research Adhoc Committee on the Indirect Costs of Research, 2001
- Member, Internal Academic Review Team, Department of Biochemistry, 2001-2002
- Member, Advisory Research Committee, Subcommittee I (Life Sciences), 2001-2002
- Member, Queen's University Senate, 2002-2005 (*elected*); 2005-2008 (*elected*)
- Member, Queen's University Senate Agenda Committee, 2002-2003
- Member, Queen's University Joint Board of Trustees/Senate Committee to Select the Next Principal, 2002-2004 (*elected*)
- Member, Queen's University Senate Promotion Advisory Committee, 2003-2005
- Member, Faculty Search Committee, Protein Function Discovery (PFD) Research Group, 2004-2005 (*elected*)
- Chair, Faculty Search Committee, Division of Cancer Biology & Genetics, Queen's Cancer Research Institute, 2004
- Member, Queen's University Senate Representative to the International Centre Council, 2004-2005
- Member, Search Committee, Director of the National Cancer Institute of Canada, Clinical Trials Group and the Edith Eisenhower Chair in Clinical Cancer Research, 2004-2005 (*elected*)
- Member, Queen's University Senate Committee on Academic Development (SCAD), 2005-2008
- Member, Council of Ontario Universities (COU), Academic Colleague for Queen's University, 2005-2008 (*elected*)
- Member, Committee on Government and Community Relations, Council of Ontario Universities, 2005-2006
- Member, Committee on Relationships with Other Postsecondary Institutions, Council of Ontario Universities, 2006-2008
- Member, David Smith Award Selection Committee, Council of Ontario Universities, 2006
- Member, Staffing Advisory Subcommittee of Basic Science Council, Faculty of Health Sciences, 2007-2009
- Member, Queen's University Senate Internal Academic Review Committee (IARC), 2007-2008.
- Member, Queen's University Board of Trustees, 2008-2010 (*elected by alumni*)
- Member, Queen's University Board of Trustees Finance Committee, 2009-2010
- Member, Queen's University Senate Nominating Committee, 2010 (*elected*)
- Member, Executive Committee, Queen's University Mass Spectrometry and Proteomics Unit, 2011
- Member, Principal's Advisory Selection Committee, Provost and Vice-Principal (Academic), 2015
- Member, Faculty of Health Sciences, Adjudication Committee for Canada 150 Chair Competition, 2017

***Internal - Departmental:***

- Chair, Seminar Program Committee, Department of Microbiology & Immunology, 1985-1987
- Library Representative, Department of Microbiology & Immunology, 1986-1989
- Member, Promotions Committee, Department of Oncology, 1986-1988, 1992
- Member, Search Committee, Department of Medicine, Division of Hematology, 1987-1988
- Member, Research Committee, Department of Oncology, 1986-1989
- Member, Library Committee, Department of Oncology, 1987-1988
- Member, Ethics Committees (4), Department of Oncology, 1988-1989
- Member, Retreat Agenda Committee, Department of Oncology, 1988-1989
- Member, Appointment, Promotion, Tenure and Leave Committee, Department of Pharmacology & Toxicology, 1990-1991, 1992
- Member, Ethics Committee, Department of Pathology, 1990
- Member, Research Advisory Committee, Department of Oncology, 1993-1997
- Member, Graduate Studies and Admissions Committee, Department of Pharmacology & Toxicology, 1993-1996
- Member, Graduate Studies Committee, Department of Pathology, 1997-2001
- Member, Faculty Search Committee, Department of Pathology, 1997-2001
- Member, Appointment, Promotion, Tenure and Leave Committee, Department of Pathology, 1998
- Member, Haust Trust Fund Committee, Department of Pathology, 1999-2003
- Member, Graduate Studies Committee, Department of Pathology & Molecular Medicine, 2005-2010
- Member, Curriculum Review Working Group, Department of Pathology & Molecular Medicine, 2006-2010
- Member, Queen's University Cancer Research Institute Executive Management Committee, 2009-2018
- Member, Research Advisory Committee, Department of Pathology & Molecular Medicine, 2009-2013
- Member, Graduate Program Committee, Department of Pathology & Molecular Medicine, 2016-2019
- Member, Undergraduate Education Working Group, Department of Pathology & Molecular Medicine, 2017-2018
- Member, Faculty Search Committee, Department of Pathology & Molecular Medicine, 2018
- Member, Faculty Search Committee, Department of Pathology & Molecular Medicine, 2019-2021
- Member, Reappointment, Tenure and Promotion Committee, Department of Pathology, 2020-2021
- Member, Adjudication Committee, Gerald and Marion Marks Award in Pharmacology & Human Toxicology, Department of Biomedical & Molecular Sciences, 2021

***Other:***

- Member, KGH Block Term Grant Committee, Ontario Respiratory Disease Foundation, 1986-1990
- Member, KRCC, OCTRF Career Scientist Search Committee, 1986
- Member, KGH Clare Nelson Bequest Committee, 1989, 1990, 1991
- Member, KRCC, OCTRF Physicist Search Committee, 1989, 1990, 1991

- Member, KRCC, Cancer '94 Committee, Department of Oncology, 1994
- Reviewer, KGH Prostate Cancer Fight Foundation (PCFF), 2009

**COMMITTEES – Academic Administration (as Deputy Provost) (partial list):**

- Chair, Senate Committee on Academic Development (SCAD), 2010-2012
- Chair, Senate Internal Academic Review (IARC) Committee, 2010-2012
- Chair, University Teaching Space Committee, 2010-2011
- Chair, Queen's University Chair in Teaching and Learning Selection Committee, 2010-2011
- Chair, Selection Committee for the Baillie Awards for Excellence in Secondary School Teaching, 2010-2011
- Chair, Provost's Advisory Committee for the Review of University Archivist, 2011
- Member, Advisory Board, Agnes Etherington Art Centre, 2010-2012
- Member, Queen's University Accessibility Committee (*delegated*), 2010-2012
- Member, Provost's Enrolment Planning Task Force, 2010-2012
- Member, Retirees' Association of Queen's-Academic Partnership Committee, 2010-2012
- Member, Queen's University Research Chairs Executive Committee, 2010-2012
- Member, Queen's University Learning Commons (QLC) Planning Committee (*delegated*), 2010-2012
- Member, Board of Directors, McGill-Queen's University Press, 2010-2012
- Member, Finance and Audit Committee, McGill-Queen's University Press, 2010-2012
- Member, Search Committee for Chief Information Officer, 2011
- Member, Sub-committee of the Joint Committee on the Administration of the Agreements (JCAA) to administer the fund for Scholarly Research and Creative Works and Professional Development, 2011-2012
- Chair, Senate Cyclical Program Review (CPR) Committee, 2011-2012
- Chair, Provost's Advisory Committee for the Review of the Director, Agnes Etherington Art Centre, 2012
- Member, Vice-Principal (Research) Advisory Committee for the Review of the Associate Vice-Principal (Research Operations), 2012
- Chair, Provost's Working Group on Diplomas and Certificates, 2012

**PROFESSIONAL DEVELOPMENT – Academic Administration:**

- Measuring the Value of a Postsecondary Education, Higher Education Quality Council of Ontario (HEQCO) Workshop, Toronto, May 2011
- Senior University Administrators Course, Centre for Higher Education Research and Development, Banff, June 2011

**REVIEWER FOR GRANTING AGENCIES**

Alberta Heritage Foundation  
 Association for International Cancer Research  
 (UK)  
 Biotechnology and Biological Sciences  
 Research Council (UK)  
 Canadian Institutes of Health Research  
 Canada Research Chair Program  
 Cancer Research UK

Medical Research Council of Canada  
 National Cancer Institute of Canada  
 National Institutes of Health (National Cancer  
 Institute, USA)  
 National Science Foundation (USA)  
 Natural Sciences and Engineering Research  
 Council  
 Netherlands Organization for Scientific



Cancer Research Campaign (UK)  
 Cancer Research Society Inc.  
 Clare Nelson Bequest, KGH  
 Connaught (University of Toronto)  
 Dutch Cancer Society  
 Florida Department of Health  
 Government of Alberta  
 Israel Science Foundation

Research  
 Ontario Institute for Cancer Research  
 Ontario Thoracic Society  
 Ontario Council of Graduate Studies Polanyi  
 Prizes  
 Prostate Cancer Fight Foundation  
 Terry Fox Research Institute

### **REFeree FOR JOURNALS**

Advances in Therapy  
 Annals of Oncology  
 Biochemical Pharmacology  
 Biochemistry and Cell Biology  
 Biochimica Biophysica Acta  
 British Journal of Cancer  
 British Journal of Pharmacology  
 Canadian Journal of Physiology and  
 Pharmacology  
 Cancer Chemotherapy and Pharmacology  
 Cancer  
 Cancer Research  
 Carcinogenesis  
 Chemical Research in Toxicology  
 Clinical Cancer Research  
 Cytometry  
 Drug Metabolism and Disposition  
 European Journal of Biochemistry  
 European Journal of Cancer and Clinical  
 Oncology  
 European Journal of Pharmaceutical Sciences  
 FEBS Journal  
 FEBS Letters  
 Functional and Integrative Genomics  
 Gastroenterology  
 Gene  
 Genomics

International Journal of Cancer  
 International Journal of Radiation Oncology,  
 Biology, Biophysics  
 Journal of Bioenergetics and Biomembranes  
 Journal of Biological Chemistry  
 Journal of Clinical Investigation  
 Journal of Experimental Medicine  
 Journal of the National Cancer Institute  
 Journal of Pharmacology and Experimental  
 Therapeutics  
 Journal of Physiology  
 Leukemia Research  
 Molecular Biology of the Cell  
 Molecular Cancer Therapeutics  
 Molecular Membrane Biology  
 Molecular Microbiology  
 Molecular Pharmacology  
 Nutrition and Cancer  
 Oncology Research/Cancer Communications  
 Pharmacogenetics  
 Pharmacogenetics Genomics  
 Proceedings of the National Academy of  
 Sciences (USA)  
 Science  
 Toxicological Sciences  
 Toxicology  
 Trends in Pharmacological Sciences

### **FACULTY APPRAISALS**

Multiple internal and external faculty appraisals (confidential)

### **OTHER**

- Listed in *Canadian WHO'S WHO*, University of Toronto Press (since 1994)
- Listed in *WHO's WHO of Canadian Women*
- WHMIS Training, Queen's University
- Equity Training and Familiarization Workshop, Queen's University, 1997, 2004

- Continuing Medical Education, Power Point Presentations, Queen's University, April 17, 2002
- Canadians for Health Research, Researcher of the Week, February 16, 2005 ([www.chrcrm.org/profile\\_susan\\_cole\\_que.htm](http://www.chrcrm.org/profile_susan_cole_que.htm))
- Faculty Development Creative Writing Workshop, Queen's University, October 16, 2013
- Profiled in American Society of Pharmacology & Experimental Therapeutics, ASPET Members Achieve!, September 2013 (<http://www.aspet.org/DrugMetabolism/aspet-members-achieve/susan-cole/>)
- Appointments/RTPC Workshop, Queen's University, October 24, 2018
- Queen's University Security Fundamentals, December 4, 2018
- Queen's Cybersecurity Education and Awareness training, October 4, 2021

### **COMMUNITY**

- Judge, Frontenac County Science Fair, 1983, 1984, 1985, 1988
- Interview, Floyd Patterson, CKWS-TV, Kingston, April 1985
- Interview, Rob Tripp, CFMK-FM, Kingston, April 1987
- Speaker, Terry Fox Run Breakfast, Northern Telecom, Kingston, August 1990
- Speaker, Canadian Cancer Society Fund-raising Breakfast, Kingston, September 1990
- Interview, Floyd Patterson, CKWS-TV, Kingston, September 1990
- Interview, Mike Poskovits, CKWS-TV, Kingston, December 1992
- Interview, Avis Favaro, CTV, Toronto, December 1992
- Interview, CBC Radio *Quirks and Quarks*, December 1992
- Interview, CKLC Radio, Kingston, December 1992
- Interview, CBC Radio *Noontime*, Ottawa, December 1992
- Featured in *Macleans* magazine, *Kingston Whig-Standard*, *Globe & Mail*, *London Free Press*, *Vancouver Sun*, *Ontario Medicine*, *Toronto Star*, *Medical Post*, *Canadian Medical Association Journal*, *Progress Against Cancer* (Canadian Cancer Society) – December 1992/January 1993)
- Speaker, Kingston General Hospital Business Partners Luncheon, April 20, 1994
- Interview, CKWS-TV, Kingston, Andrew Barnett, May 1, 1996
- Speaker, NCIC 50<sup>th</sup> Anniversary Celebrations, Kingston, June 3, 1996
- Interview, Austrian Public Radio, Vienna, Austria, September 22, 1997
- Featured in *Cancer Care* 3(2): 1999 (Cancer Care Ontario magazine)
- Featured in *Kingston Whig-Standard*, August 9, 2001; December 11, 2001; October 17, 2006; November 2007
- Featured in *A Sampling of Success Stories of Federal Investment in University Research*, Council of Ontario Universities, March 2003
- Speaker, Rotary Club, Cobourg, May 30, 2003
- Introduction, Queen's University Terry Fox Run, September 14, 2003
- Speaker, Canadian Cancer Society Research Symposium, Loyalist College, Belleville, ON, November 29, 2006
- Featured in *Times Union*, Albany, NY; interviewed by Claire Hughes, March 26, 2015
- Executive Committee, John Austin Society (Queen's University), April 2019-2023

**PEER-REVIEWED FULL PUBLICATIONS**

[Career Total to date: 250] (names of student, postdoctoral and other trainees are underlined)

**H-INDEX = 90; I10-INDEX = 228; CITATIONS = 35,477** [GOOGLE SCHOLAR JANUARY 2025]

4 ARTICLES CITED >1,000 TIMES; 14 CITED 400-999; 46 CITED 100-399 TIMES; 38 CITED 50-99 TIMES)

1. C. Pace-Asciak and **S. Cole**. Inhibitors of prostaglandin catabolism. I. Differential sensitivity of 9-PGDH, 13-PGR and 15-PGDH to low concentrations of indomethacin. *Experientia* 31: 143-145 (1975). PMID: 1112337 <https://doi.org/10.1007/BF01990669>
2. **S.P.C. Cole**, E.J. Vavasour and G.S. Marks. Drug-induced porphyrin biosynthesis. XIX. Potentiation of the porphyrin-inducing effects of SKF 525-A in the chick embryo liver by 3,5-diethoxycarbonyl-1,4-dihydro-2,4,6-trimethylpyridine, an inhibitor of ferrochelatase. *Biochem. Pharmacol.* 28: 3533-3538 (1979). PMID: 533555 **\*39 citations-07/2024**
3. **S.P.C. Cole** and G.S. Marks. Structural requirements in dihydropyridines for ferrochelatase inhibition and  $\delta$ -aminolevulinic acid synthetase induction. *Int. J. Biochem.* 12: 989-992 (1980). PMID: 7450160
4. P.R. Ortiz de Montellano, K.L. Kunze, **S.P.C. Cole** and G.S. Marks. Inhibition of hepatic ferrochelatase by the four isomers of *N*-methylprotoporphyrin IX. *Biochem. Biophys. Res. Commun.* 97: 1436-1442 (1980). PMID: 6894236 **\*44 citations-07/2024**
5. **S.P.C. Cole**, D.T. Zelt and G.S. Marks. Comparison of the effects of griseofulvin and 3, 5-diethoxycarbonyl-1,4-dihydro-2,4,6-trimethylpyridine on ferrochelatase activity in the chick embryo liver. *Mol. Pharmacol.* 19: 477-480 (1981). PMID: 7266472
6. **S.P.C. Cole**, R.A. Whitney and G.S. Marks. Ferrochelatase-inhibitory and porphyrin-inducing properties of 3,5-diethoxycarbonyl-1,4-dihydro-2,4,6- trimethylpyridine and its analogues in chick embryo liver cells. *Mol. Pharmacol.* 20: 395-403 (1981). PMID: 7300820 **\*34 citations-07/2024**
7. **S.P.C. Cole**, T.E. Massey, G.S. Marks and W.J. Racz. Effects of porphyrin-inducing drugs on ferrochelatase activity in isolated mouse hepatocytes. *Can. J. Physiol. Pharmacol.* 59: 1155-1158 (1981). PMID: 7317839
8. P.R. Ortiz de Montellano, K.L. Kunze, **S.P.C. Cole** and G.S. Marks. Differential inhibition of hepatic ferrochelatase by the isomers of *N*-ethylprotoporphyrin IX. *Biochem. Biophys. Res. Commun.* 103: 581-586 (1981). PMID: 7332558 **\*49 citations-07/2024**
9. **S.P.C. Cole**, G.S. Marks, P.R. Ortiz de Montellano and K.L. Kunze. Inhibition of ferrochelatase by *N*-methylprotoporphyrin IX is not accompanied by  $\delta$ -aminolevulinic acid synthetase induction in chick embryo liver cell culture. *Can. J. Physiol. Pharmacol.* 60: 212-215 (1982). PMID: 6896292

10. G.S. Marks, D.T. Zelt and **S.P.C. Cole**. Alterations in the heme biosynthetic pathway as an index of exposure to toxins. *Can. J. Physiol. Pharmacol.* 60: 1017-1026 (1982). PMID: 6812933
11. **S.P.C. Cole** and G.S. Marks. A radiochemical assay for heme synthase activity; confirmation and supplement. *Enzyme* 28: 231-232 (1982).
12. G.S. Marks, S.B. Follows, D.T. Zelt and **S.P.C. Cole**. Patterns of porphyrin accumulation in response to chemicals in chick embryo liver cells. *Can. J. Physiol. Pharmacol.* 61: 546-553 (1983). PMID: 6883207
13. **S.P.C. Cole**, B.G. Campling, T. Atlaw, D. Kozbor and J.C. Roder. Human monoclonal antibodies. *Molec. Cell. Biochem.* 62: 109-120 (1984). PMID: 6087121 **\*140 citations-07/2024**
14. **S.P.C. Cole**, B.G. Campling, I.H. Louwman, D. Kozbor and J.C. Roder. A strategy for the production of human monoclonal antibodies reactive with lung tumor cells. *Cancer Res.* 44: 2750-2753 (1984). PMID: 6327024 **\*66 citations-07/2024**
15. **S.P.C. Cole** and G.S. Marks. Ferrochelatase and *N*-alkylated porphyrins. *Molec. Cell. Biochem.* 64: 127-137 (1984). (review) PMID: 6390167 **\*52 citations-07/2024**
16. **S.P.C. Cole**, E.H. Vreeken and J.C. Roder. Antibody production by human x human hybridomas in serum-free medium. *J. Immunol. Meth.* 78: 271-278 (1985). PMID: 3989311 **\*33 citations-07/2024**
17. J.C. Roder, D. Kozbor, **S.P.C. Cole**, T. Atlaw, B.G. Campling and R.C. McGarry. The EBV-hybridoma technique. In, *Human Hybridomas and Monoclonal Antibodies* (eds. E.G. Engleman, S. Fount, J. Larrick, A. Raubitschek), Ch. 4, pp. 55-70, Plenum Press, New York, NY, 1985.
18. **S.P.C. Cole**, S. Mirski, R.C. McGarry, R. Cheng, B.G. Campling and J.C. Roder. Differential expression of Leu-7 antigen on human lung tumor cells. *Cancer Res.* 45: 4285-4290 (1985). PMID: 3928154 **\*39 citations-07/2024**
19. **S.P.C. Cole**, D. Kozbor and J.C. Roder. Strategies for production of human monoclonal antibodies. In, *Hybridoma Technology in the Biosciences and Medicine* (ed. T.A. Springer), Ch. 2, pp. 43-55, Plenum Press, New York, NY, 1985.
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### **MANUSCRIPTS IN PREPARATION**

- D. Singer, A. Kragl, Y.M. Chan, K. Ziems, J. Glaubitz, S. Grammbauer, S. Broderdorf, **S.P.C. Cole**, M.V. Tzvetkov, G. Jedlitschky. Major factors determining the basal expression of the human MRP4 (ABCC4) transporter: substantial role of SP1.
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### **CONFERENCE ABSTRACTS/POSTERS/PRESENTATIONS**

**[Career Total: 322]**

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167. R.G. Deeley and **S.P.C. Cole**. Transport by human and murine MRP1, structural determinants of substrate specificity and functional differences between nucleotide binding domains. 3rd FEBS Advanced Lecture Course "ATP-Binding Cassette (ABC) Proteins From Multidrug Resistance to Genetic Disease". Gosau, Austria. March 3-10, 2001.
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175. **S.P.C. Cole**. ABC transporters and drug resistance. Symposium on "Children's Cancer: From Mechanisms to Therapeutics". Sydney, Australia. October 8, 2001 (*Keynote speaker*).
176. **S.P.C. Cole**. MRP-related ABC transporters: defining their roles in drug sensitivity and resistance. 33rd Meeting of the International Society of Paediatric Oncology (SIOP). Brisbane, Australia. October 11, 2001 (*Keynote speaker*).
177. E.M. Leslie\*, R.J. Bowers, R.G. Deeley and **S.P.C. Cole**. Structure activity studies of glutathione analogues that stimulate estrone 3-sulfate transport by the multidrug resistance protein, MRP1. Society for

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178. C.J. Oleschuk, K-i. Ito, C. Westlake, M. Vasa, R.G. Deeley and **S.P.C. Cole**. Modulation of substrate specificity by mutation of Trp<sup>1254</sup> in the apical membrane transporter MRP2. Society for Toxicology of Canada Annual Symposium. Montréal, QC. December 6-7, 2001.
179. **S.P.C. Cole** and R.G. Deeley. Human MRP1 and MRP2: broad spectrum ABC transporters of toxicological relevance. CSBMCB 45th Annual Meeting and 12th Winternational Symposium. Banff, AB. March 22-24, 2002. (*invited speaker*)
180. C.J. Oleschuk\*, K. Ito, R.G. Deeley and **S.P.C. Cole**. Substitution of Trp<sup>1242</sup> in transmembrane segment 17 alters the substrate specificity of human multidrug resistance protein, MRP3 (ABCC3). CSBMCB 45th Annual Meeting and 12th Winternational Symposium. Banff, AB. March 22-24, 2002. (*\*Honorable Mention for Best Graduate Student Poster Competition*).
181. E.M. Leslie, I. Létourneau, K.E. Weigl, R.G. Deeley and **S.P.C. Cole**. Functional and structural consequences of cysteine substitutions in the NH<sub>2</sub>-proximal region of human multidrug resistance protein 1 (MRP1). CSBMCB 45th Annual Meeting and 12th Winternational Symposium. Banff, AB. March 22-24, 2002.
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189. **S.P.C. Cole** and R.G. Deeley. Transport of xenobiotic and endobiotic metabolites by the MRP-related transporters, IUPHAR XIVth World Congress of Pharmacology. San Francisco, CA. July 8, 2002. (*invited speaker*)



190. **S.P.C. Cole.** Structure-function studies of the human multidrug resistance protein (MRP) genes. 22nd International Symposium on “Xenobiotics and Host Responses”, University of Occupational and Environmental Health. Kitakyushu, Japan. September 24, 2002. (*invited speaker*)
191. C.J. Oleschuk, R.G. Deeley and **S.P.C. Cole.** Substitution of Trp<sup>1242</sup> in predicted transmembrane segment 17 alters the substrate specificity of the human bile salt transporter, MRP3 (ABCC3), 53rd Annual Meeting of the American Association for the Study of Liver Diseases. Boston, MA. November 1-5, 2002. (Abstract # 101257)
192. **S.P.C. Cole.** Structure-function studies of MRP1 and GSH-stimulated organic anion transport. Joint meeting Symposium on “ABC Proteins” and the “5th Conference on ABC Proteins and Ion Channels - From Gene to Disease”. Kyoto, Japan. January 24-26, 2003. (*invited speaker*)
193. **S.P.C. Cole** and R.G. Deeley. Structure-function studies of the human multidrug resistance protein, MRP1/ABCC1. 4th FEBS Advanced Lecture Course “ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Disease”. Gosau, Austria. March 4, 2003. (*plenary speaker*)
194. G. Conseil, R.G. Deeley and **S.P.C. Cole.** Importance of two adjacent cytosolic tyrosine residues for MRP1 (ABCC1) transport activity. 4th FEBS Advanced Lecture Course “ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Disease”. Gosau, Austria. March 1-8, 2003.
195. A. Haimeur, R.G. Deeley and **S.P.C. Cole.** Charged amino acids in the second membrane spanning domain of multidrug resistance protein MRP1 are important for transport activity and substrate specificity. 4th FEBS Advanced Lecture Course “ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Disease”. Gosau, Austria. March 1-8, 2003.
196. K. Koike, E.M. Leslie, C.J. Oleschuk, R.G. Deeley and **S.P.C. Cole.** Contribution of proline residues in or near the transmembrane helices to the transport activity of MRP1 (ABCC1). 4th FEBS Advanced Lecture Course “ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Disease”. Gosau, Austria. March 1-8, 2003.
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198. C.J. Westlake, **S.P.C. Cole** and R.G. Deeley. Structure and function analysis of the multidrug resistance protein (MRP)1 COOH-terminal regions. 4th FEBS Advanced Lecture Course “ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Disease”. Gosau, Austria. March 1-8, 2003.
199. I.J. Létourneau, E.M. Leslie, J.C. Hall, R.G. Deeley and **S.P.C. Cole.** Modulation of multidrug resistance protein 1 (MRP1), MRP2 and MRP3 transport by herbicide glutathione conjugates. *Proc. Amer. Assoc. Cancer Res.* 44: 3680 (2003).
200. K. Koike, E.M. Leslie, C.J. Oleschuk, R.G. Deeley and **S.P.C. Cole.** Contribution of proline residues in or near the transmembrane helices to the transport activity of MRP1 (ABCC1). *Proc. Amer. Assoc. Cancer Res.* 44: 3682 (2003).
201. L.F. Payen, M. Gao, **S.P.C. Cole** and R.G. Deeley. Structural basis of functional differences between the nucleotide binding domains of multidrug resistance protein 1 (MRP1). *Proc. Amer. Assoc. Cancer Res.* 44: 3684 (2003).
202. C.J. Westlake, **S.P.C. Cole** and R.G. Deeley. Identification of C-terminal regions important for multidrug resistance protein (MRP)1 function and trafficking. *Proc. Amer. Assoc. Cancer Res.* 44: 3687 (2003).

203. A. Haimeur, R.G. Deeley and **S.P.C. Cole**. Charged amino acids in the second membrane spanning domain of multidrug resistance protein MRP1 are important for transport activity and substrate specificity. *Proc. Amer. Assoc. Cancer Res.* 44: 3688 (2003).
204. K.E. Weigl, D.R. Hipfner, R.G. Deeley and **S.P.C. Cole**. Glycosylation of human MRP1 (ABCC1) affects both the conformation of membrane spanning domain 3 as well as the efficiency of E<sub>2</sub>17 $\beta$ G transport. *Proc. Amer. Assoc. Cancer Res.* 44: 3689 (2003).
205. D-W. Zhang, H. Gu, **S.P.C. Cole** and R.G. Deeley. Characterization of wild-type and mutant human multidrug resistance protein (MRP) 3: role of polar amino acid residues within predicted transmembrane helix 17 in determining the substrate specificity of MRP3. *Proc. Amer. Assoc. Cancer Res.* 44: 3692 (2003).
206. S.E.L. Mirski, J.C. Bielawski and **S.P.C. Cole**. Identification of functional nuclear export sequences in human topoisomerase II  $\alpha$  and  $\beta$ . *Proc. Amer. Assoc. Cancer Res.* 44: 4718 (2003).
207. S.E.L. Mirski, J.C. Bielawski, and **S.P.C. Cole**. Identification of functional nuclear export sequences in topoisomerase II  $\alpha$  and  $\beta$ . Gordon Research Conference on Molecular Therapeutics of Cancer, Queen's College. Oxford, UK. July 13-18, 2003.
208. E.M. Leslie\*, **S.P.C. Cole** and M.P. Waalkes. Arsenic transport by the human multidrug resistance protein 1 (MRP1/ABCC1): evidence that a tri-glutathione conjugate is required. 4th Annual Fellows and Young Investigators Retreat, NCI Center for Cancer Research. Williamsburg, VA. March 9-11, 2004. (\**Outstanding Poster Presentation Travel Award*).
209. E.M. Leslie\*, **S.P.C. Cole** and M.P. Waalkes. Arsenic transport by the human multidrug resistance protein 1 (MRP1/ABCC1): evidence that a tri-glutathione conjugate is required. 43rd Annual Meeting of the Society of Toxicology. Baltimore, MD. March 21-25, 2004. (\**Society of Toxicology Metals Specialty Section Postdoctoral Fellow Award*).
210. **S.P.C. Cole**. Molecular determinants of the substrate specificity and transport functions of the human drug and organic anion transporter, MRP1 (ABCC1). Centre National de la Recherche Scientifique (CNRS) 9th Symposium, "Cancer: Targets, Molecules and Therapies". Gif-sur-Yvette, France. June 11, 2004. (*invited speaker*)
211. E.M. Leslie\*, **S.P.C. Cole** and M.P. Waalkes. Arsenic transport by the human multidrug resistance protein 1 (MRP1/ABCC1): requirement for a tri-glutathione conjugate. 7th International ISSX Meeting. Vancouver, BC. August 29-September 2, 2004. (\**3rd place Poster Award*). *Drug Metab. Rev.* 36: 176 (2004).
212. **S.P.C. Cole**. ABC transporters in cancer therapy: an update. Molecular Targets for Cancer Therapy, Third Biennial Conference, Moffitt Cancer Center. Tampa, FL. October 5, 2004. (*invited speaker*)
213. I.J. L  tourneau, K. Koike, R.G. Deeley and **S.P.C. Cole**. Functional characterization of non-synonymous single nucleotide polymorphisms of human multidrug resistance protein 1 (MRP1). Pharmacogenomics Meeting. Cold Spring Harbor Laboratory, NY. November 18-21, 2004.
214. C.J. Westlake, **S.P.C. Cole** and R.G. Deeley. Protein processing and plasma membrane targeting functions of the multidrug resistance protein (MRP)1 N-terminal membrane spanning domain. Biophysical Society 49th Annual Meeting. Long Beach, CA. February 12-16, 2005.
215. J.P. Wyles, Z. Wu, S.E.L. Mirski and **S.P.C. Cole**. Nuclear interactions of DNA topoisomerase II and phospholipid scramblase I. CIHR Institute of Cancer Research (ICR) and the National Cancer Institute of Canada (NCIC), "Cancer Research Across the Spectrum: National Meeting for Trainees". Mont Tremblant, QC. May 9-11, 2005.

216. I.J. L  tourneau\*, R.G. Deeley and **S.P.C. Cole**. Functional characterization of non-synonymous single nucleotide polymorphisms of human multidrug resistance protein MRP1 (ABCC1). 8th Annual Meeting for Health Sciences Research Trainees. Queen's University, Kingston, ON. May 31, 2005. (*\*Award for Excellence in Research, Poster Presentation competition*).
217. **S.P.C. Cole**. Towards an understanding of the substrate specificity of the human ABC transporter, MRP1 (ABCC1). 12th Annual MDIBL Environmental Health Sciences Symposium, "Molecular evolution of chemical defense mechanisms". Salisbury Cove, ME. July 14, 2005. (*invited speaker*)
218. I.J. L  tourneau, R.G. Deeley and **S.P.C. Cole**. Functional characterization of non-synonymous single nucleotide polymorphisms of the gene encoding human multidrug resistance protein (MRP1/ABCC1). Gordon Research Conferences, "Multidrug Resistance Efflux Systems". Oxford, UK. August 28 - September 2, 2005.
219. P. Wu, C.J. Oleschuk, Q. Mao, B. Keller, R.G. Deeley and **S.P.C. Cole**. Analysis of human multidrug resistance protein 1 (ABCC1) by mass spectrometry: towards identification of LTC<sub>4</sub> binding sites. 2nd Annual North American ABC Genetic Workshop, NCI-NIH. Frederick, MD. September 29, 2005.
220. G. Conseil, A.J. Rothnie, R.G. Deeley and **S.P.C. Cole**. Impact of mutating the cationic residues Arg<sup>1138</sup>, Lys<sup>1141</sup> and Arg<sup>1142</sup> at the cytosolic interface of TM15 on protein expression and transport activity of human MRP1 (ABCC1). 2nd Annual North American ABC Genetic Workshop, NCI-NIH. Frederick, MD. September 29, 2005.
221. I.J. L  tourneau, R.G. Deeley and **S.P.C. Cole**. Comparison of SIFT and PolyPhen algorithm predictions with *in vitro* functional analysis of non-synonymous single nucleotide polymorphisms of multidrug resistance protein 1 (*MRP1/ABCC1*). 2nd Annual North American ABC Genetic Workshop, NCI-NIH. Frederick, MD. September 29, 2005 (*selected for oral presentation*).
222. A.J. Slot, I.J. L  tourneau, R.G. Deeley and **S.P.C. Cole**. Mutation of proline 1158 to alanine in cytoplasmic loop 7 significantly alters the substrate specificity of human MRP2 (ABCC2). 2nd Annual North American ABC Genetic Workshop, NCI-NIH. Frederick, MD. September 29, 2005.
223. A.J. Rothnie, R. Callaghan, R.G. Deeley and **S.P.C. Cole**. The stimulatory role of GSH in MRP1 (ABCC1)-mediated transport. 2nd Annual North American ABC Genetic Workshop, NCI-NIH. Frederick, MD. September 29, 2005 (*selected for oral presentation*).
224. I.J. L  tourneau\*, R.G. Deeley and **S.P.C. Cole**. Comparison of SIFT and polyphen algorithm predictions with *in vitro* functional analysis of non-synonymous single nucleotide polymorphisms of multidrug resistance protein 1 (*MRP1/ABCC1*). Society of Toxicology of Canada (STC) 38th Annual Symposium, "The Impact of Toxicants on Child Health". Montreal, QC. December 5-6, 2005. (*\*recipient of a STC Travel Award*).
225. J.P. Wyles, Z. Wu, S.E.L. Mirski and **S.P.C. Cole**. Nuclear interactions of DNA topoisomerase II and phospholipid scramblase 1. 45th Annual Meeting of the American Society for Cell Biology. San Francisco, CA. December 10-14, 2005.
226. **S.P.C. Cole**. Structure function studies of the LTC<sub>4</sub> transporter, MRP1 (ABCC1). Keystone Symposium on Eicosanoids in Inflammation and Chronic Diseases. Park City, UT. January 11, 2006. (*invited speaker*) (*CME credit*)
227. A. Rothnie\*, R. Callaghan, R.G. Deeley and **S.P.C. Cole**. The mechanism of GSH stimulated estrone sulphate transport by the multidrug resistance protein 1 (MRP1, ABCC). FEBS Special Meeting on ABC Proteins - ABC 2006. Innsbruck, Austria. March 5-9, 2006 (*\*recipient of a Steiner Travel Award*).
228. I.J. L  tourneau\*, A.J. Slot, R.G. Deeley and **S.P.C. Cole**. Role of a conserved cytoplasmic proline residue in signaling between the membrane spanning domains and nucleotide binding domains (NBDs) of MRP1,

- MRP2 and MRP3. FEBS Special Meeting on ABC Proteins - ABC 2006. Innsbruck, Austria. March 5-9, 2006 (*\*recipient of a NCIC Travel Award*).
229. G. Conseil, A.J. Rothnie, R.G. Deeley and **S.P.C. Cole**. Impact of mutating the charged residues in the cytoplasmic loop 7 on protein expression and transport activity of human MRP1 (ABCC1). FEBS Special Meeting on ABC Proteins - ABC 2006. Innsbruck, Austria. March 5-9, 2006.
230. M.F. Rosenberg, L. Zhang, P. Wu, Q. Mao, R.G. Deeley, **S.P.C. Cole** and R.C. Ford. Localization of the extra transmembrane domain of multidrug resistance protein 1. FEBS Special Meeting on ABC Proteins - ABC 2006. Innsbruck, Austria. March 5-9, 2006.
231. P. Bandler, C. Westlake, R. Burtch-Wright, **S.P.C. Cole** and R.G. Deeley. Identification of elements involved in plasma membrane targeting of human multidrug resistance proteins, MRP1 and MRP2. FEBS Special Meeting on ABC Proteins - ABC 2006. Innsbruck, Austria. March 5-9, 2006.
232. A. Theis, D. Zhang, **S.P.C. Cole** and R.G. Deeley. Functional characterization of a cysteine-less MRP1 in *Spodoptera frugiperda* 21 insect cells. FEBS Special Meeting on ABC Proteins - ABC 2006. Innsbruck, Austria. March 5-9, 2006.
233. **S.P.C. Cole**. ABC transporters: an update on the MRP1 drug efflux pump. Division of Drug Metabolism, Merck Pharmaceuticals. Westpoint, PA. April 18, 2006. (*invited speaker*)
234. **S.P.C. Cole**. ABC transporters: an update on the MRP1 drug efflux pump. Division of Drug Metabolism, Merck Pharmaceuticals. Rahway, NJ. April 19, 2006. (*invited speaker*)
235. Md. T. Hoque, G. Conseil and **S.P.C. Cole**. Differential localization of MRP4 in polarized kidney cell lines, MDCK and LLC-PK1. CSBMCB 49th Annual Meeting, "Membrane Proteins in Health & Disease". Niagara-on-the-Lake, ON. May 31 - June 4, 2006. *Biochem. Cell. Biol.* 84: 1065-1066 (2006)
236. P. Wu, B. Keller, R.G. Deeley and **S.P.C. Cole**. Functional purification and identification of LTC<sub>4</sub> binding sites of multidrug resistance protein 1 (ABCC1). CSBMCB 49th Annual Meeting, "Membrane Proteins in Health & Disease". Niagara-on-the-Lake, ON. May 31 - June 4, 2006.
237. A.J. Rothnie, R.G. Deeley and **S.P.C. Cole**. Mechanistic differences between GSH transport and GSH modulated transport by MRP1 (ABCC1). 3rd Annual North American Genetic ABC Workshop, NCI-NIH. Frederick, MD. September 21, 2006.
238. G. Conseil, A.J. Rothnie, R.G. Deeley and **S.P.C. Cole**. Mutation of charged residues in the cytoplasmic loop 7 of the multidrug and organic anion transporter MRP1/ABCC1 affects protein expression, localization and transport activity. 3rd Annual North American Genetic ABC Workshop, NCI-NIH. Frederick, MD. September 21, 2006.
239. I.J. Létourneau, A.J. Slot, R.G. Deeley and **S.P.C. Cole**. A conserved cytoplasmic proline residue plays a role in signaling between substrate binding sites and the nucleotide binding domains of MRP1, MRP2 and MRP3. 3rd Annual North American Genetic ABC Workshop, NCI-NIH. Frederick, MD. September 21, 2006.
240. P.E. Bandler, C.J. Westlake, R. Burtch-Wright, **S.P.C. Cole** and R.G. Deeley. Identification of elements involved in plasma membrane targeting of human multidrug resistance proteins, MRP1 and MRP2. 3rd Annual North American Genetic ABC Workshop, NCI-NIH. Frederick, MD. September 21, 2006.
241. L. Qin, **S.P.C. Cole** and R.G. Deeley. Identification of residues responsible for the asymmetric functionality of the nucleotide binding domains of MRP1. 3rd Annual North American Genetic ABC Workshop, NCI-NIH. Frederick, MD. September 21, 2006.

242. **S.P.C. Cole.** The MRP1 (ABCC1) drug efflux pump: validation studies of genetic variants. The 3rd International Symposium of Korea Biomedical Genomic Research Association and National Genome Research Institute". Seoul, Korea. December 15, 2006. (*invited speaker*)
243. **S.P.C. Cole.** MRP1 and related transporters. 7th Cerebral Vascular Biology International Conference. Ottawa, ON. June 25, 2007. (*invited speaker*)
244. **Md. T. Hoque** and **S.P.C. Cole.** Na<sup>+</sup>/H<sup>+</sup> exchanger regulatory factor 1 (NHERF1) functionally interacts with the multidrug resistance protein 4 (MRP4) via a potential PDZ-interaction motif, ETAL. 4th Annual North American Genetic ABC Workshop, NCI-NIH. Frederick, MD. October 4, 2007.
245. **A.J. Slot,** D.D. Wise, R.G. Deeley, T.J. Monks and **S.P.C. Cole.** Modulation of human MRP1 (ABCC1) and MRP2 (ABCC2) transport activities by endogenous and exogenous glutathione-conjugated catechol metabolites. 4th Annual North American Genetic ABC Workshop, NCI-NIH. Frederick, MD. October 4, 2007.
246. **M.K. DeGorter,** **G. Conseil,** R.L. Campbell, R.G. Deeley and **S.P.C. Cole.** Molecular modeling of the human multidrug resistance protein 1 (MRP1/ABCC1) using the structure of *S. aureus* Sav1866 as template. 4th Annual North American Genetic ABC Workshop, NCI-NIH. Frederick, MD. October 4, 2007. (*selected for oral presentation*)
247. **S.P.C. Cole.** The MRP1 drug and organic anion transporter: structural determinants of its activity and substrate selectivity. "ABC Transport Proteins in Environmental Health and Toxicology" International Meeting. Siena, Italy. October 20, 2007. (*invited speaker*)
248. **S.P.C. Cole.** MRP1 (ABCC1): molecular determinants of its substrate transport and specificity. 2nd FEBS Special Meeting: "ATP-Binding Cassette (ABC) Proteins: from Multidrug Resistance to Genetic Diseases". Innsbruck, Austria. March 4, 2008. (*plenary speaker*)
249. **A.J. Rothnie,** **G. Conseil,** R.G. Deeley and **S.P.C. Cole.** Mechanistic differences between GSH, GSH-dependent and GSH-independent substrates on nucleotide and substrate binding by MRP1/ABCC1. 2nd FEBS Special Meeting: "ATP-Binding Cassette (ABC) Proteins: from Multidrug Resistance to Genetic Diseases". Innsbruck, Austria. March 1-8, 2008.
250. **Md. T. Hoque** and **S.P.C. Cole.** Na<sup>+</sup>/H<sup>+</sup> exchanger regulatory factor 1 (NHERF1) functionally interacts with the multidrug resistance protein 4 (MRP4) via a potential PDZ-interaction motif, ETAL. 2nd FEBS Special Meeting: "ATP-Binding Cassette (ABC) Proteins: from Multidrug Resistance to Genetic Diseases". Innsbruck, Austria. March 1-8, 2008.
251. **A.J. Slot,** R.G. Deeley, T.J. Monks and **S.P.C. Cole.** Identification of multidrug resistance proteins (MRPs) as efflux transporters of GSH-conjugated estrogen metabolites. Gordon Research Conference on "Drug Metabolism". Holderness, NH. July 6-11, 2008.
252. **S.P.C. Cole.** MRP1: structural basis for activity and substrate selectivity. Symposium on "Transporters: Relevance to Drug Disposition and Disease", IXth World Conference on Clinical Pharmacology and Therapeutics - CPT2008. Québec City, QC. July 30, 2008. (*invited speaker*)
253. **S.P.C. Cole.** GSH and GSH conjugate transport by MRP1. "MRP and Membrane Transport", Glutathione Transferase 2008 Conference (GST2008). Uppsala, Sweden. August 21, 2008. (*invited speaker*)
254. **S.H. Iram,** R.G. Deeley and **S.P.C. Cole.** Role of cytoplasmic loop 5 (CL5) in the expression and function of MRP1 (ABCC1). 5th Annual North American Genetic ABC Workshop, NCI-NIH. Frederick, MD. September 25, 2008.
255. **Md. T. Hoque** and **S.P.C. Cole.** Membrane localization of MRP4 is regulated by NHERF1 in polarized kidney epithelial cells. 5th Annual North American Genetic ABC Workshop, NCI-NIH. Frederick, MD. September 25, 2008. (*selected for oral presentation*)

256. K. Maeno, A. Nakajima, G. Conseil, A. Rothnie, R.G. Deeley and **S.P.C. Cole**. Analysis of S-methylGSH stimulated estrone sulfate transport and modulator sensitivity of TM6 and TM17 mutants of MRP1 (ABCC1). 5th Annual North American Genetic ABC Workshop, NCI-NIH. Frederick, MD. September 25, 2008.
257. M. Chan, G. Conseil, R.G. Deeley and **S.P.C. Cole**. Rescue of non-expressing mutants of multidrug resistance protein 1 (MRP1). 5th Annual North American Genetic ABC Workshop, NCI-NIH. Frederick, MD. September 25, 2008.
258. A.J. Slot, T.J. Monks, R.G. Deeley and **S.P.C. Cole**. Transport of GSH-conjugated catechol estrogen metabolites by MRP1/ABCC1 and MRP2/ABCC2. 5th Annual North American Genetic ABC Workshop, NCI-NIH. Frederick, MD. September 25, 2008.
259. S.V. Molinski, G. Conseil, R.G. Deeley and **S.P.C. Cole**. Functional analysis of three acidic residues in the cytoplasmic  $\alpha$ -helical region in COOH-proximal to TM17 in the multidrug transporter MRP1 (ABCC1). 5th Annual North American Genetic ABC Workshop, NCI-NIH. Frederick, MD. September 25, 2008. (*selected for oral presentation*)
260. A.J. Hampton, Y. Ji, G. Conseil, C.A. Ward, **S.P.C. Cole** and B.M. Bennett. Expression of the ATP-binding cassette transporter, ABCA3 and vascular nitrite distribution in rat aorta after treatment with glyceryl trinitrate. 5th Annual North American Genetic ABC Workshop, NCI-NIH. Frederick, MD. September 25, 2008.
261. A.J. Slot\*, T.J. Monks and **S.P.C. Cole**. Transport of GSH-conjugated catechol estrogen metabolites by MRP1/ABCC1 and MRP2/ABCC2. 40<sup>th</sup> Annual Symposium of the Society of Toxicology of Canada. Montréal, QC. December 1-2, 2008 (*\*recipient of a STC Travel Award*).
262. M. Chan\*, G. Conseil and **S.P.C. Cole**. Temperature insensitivity of non-expressing TM16 mutants of MRP1 (ABCC1). 40<sup>th</sup> Annual Symposium of the Society of Toxicology of Canada. Montréal, QC. December 1-2, 2008 (*\*recipient of a STC Travel Award*).
263. S.V. Molinski\*, G. Conseil and **S.P.C. Cole**. Functional analysis of an  $\alpha$ -helical region proximal to transmembrane helix 17 in multidrug resistance protein 1. 40<sup>th</sup> Annual Symposium of the Society of Toxicology of Canada. Montréal, QC. December 1-2, 2008 (*\*recipient of a STC Travel Award*).
264. **S.P.C. Cole**. Molecular determinants of LTC<sub>4</sub> transport by MRP1/ABCC1. 5<sup>th</sup> Takeda Science Foundation Symposium on PharmaSciences: "Bioactive Lipid Molecules and Transporters". Tokyo, Japan. May 26, 2009.
265. **S.P.C. Cole**. Molecular determinants of LTC<sub>4</sub> transport by MRP1/ABCC1. Fourth iCeMS International Symposium on Integrated Cell-Material Sciences, "Integrated Physical/Chemical Biology of the Cell: from Genes to Membrane Systems". Kyoto, Japan. May 28, 2009.
266. S.H. Iram\* and **S.P.C. Cole**. Functional analysis of CL5 amino acids at the interface of NBD2 for stable expression and activity of human MRP1 (ABCC1). 3<sup>rd</sup> FEBS Special Meeting "ATP-Binding Cassette (ABC) Proteins: from Multidrug Resistance to Genetic Diseases". Innsbruck, Austria. February 27 – March 5, 2010 (*\*recipient of a FEBS Int'l Travel Award*).
267. M. Chan\*, S. Iram and **S.P.C. Cole**. R1202D and E1204K: rescue resistant TM16 mutants of MRP1 (ABCC1). 3<sup>rd</sup> FEBS Special Meeting "ATP-Binding Cassette (ABC) Proteins: from Multidrug Resistance to Genetic Diseases". Innsbruck, Austria. February 27 – March 5, 2010 (*\*recipient of a CCSRI Travel Award*).
268. A.J. Slot, T.J. Monks and **S.P.C. Cole**. Complex inhibition of MRP1/ABCC1 transport function by glutathionylated benzene metabolites. 3<sup>rd</sup> FEBS Special Meeting "ATP-Binding Cassette (ABC) Proteins: from Multidrug Resistance to Genetic Diseases". Innsbruck, Austria. February 27 – March 5, 2010.

269. M.Z. Perry, G. Conseil and **S.P.C. Cole**. Expression and transport of MRP1 processing mutants in insect cells. 7th Annual North American ABC Meeting, NCI. Frederick, MD. September 14-15, 2010.
270. R.L. Myette, G. Conseil, M.R. Detty and **S.P.C. Cole**. Chalcogenopyrylium derivatives as modulators of multidrug resistance protein 1 (MRP1/ABCC1) transport activity. 7th Annual North American ABC Meeting, NCI. Frederick, MD. September 14-15, 2010.
271. **S.P.C. Cole**. Molecular determinants of MRP/ABCC expression and transport. Symposium on "Multidrug Resistance and Transporters", Joint Meeting of the Australian Society for Biophysics and Australian Physiological Society. Adelaide, Australia. November 29, 2010.
272. A. Rothnie, K. Weigl, X. Wang, I. L  tourney, G. Conseil and **S.P.C. Cole**. Understanding [<sup>32</sup>P]azidoADP.V<sub>i</sub> 'trapping' of MRP1. Biochemical Society Annual Symposium "Recent Advances in Membrane Biochemistry", Robinson College. Cambridge, UK. January 5-7, 2011.
273. C.B. Shukalek, G. Conseil, **S.P.C. Cole** and E.M. Leslie. Regulation of arsenic triglutathione [As(GS)<sub>3</sub>] transport by the human multidrug resistance protein 1 (MRP1/ABCC1) through post-translational modification. American Society for Pharmacology and Experimental Therapeutics 2011 Annual Meeting at Experimental Biology. Washington, DC. April 9-13, 2011.
274. **S.P.C. Cole**. Molecular determinants of human MRP1 and MRP4 expression. Symposium on "Frontiers in Epithelial Transport 2011", Yonsei University. Seoul, Korea. April 15, 2011.
275. **S.P.C. Cole**. Molecular determinants of human MRP1 and MRP4 expression. Institute for Integrated Cell-Material Sciences, Kyoto University. Japan. April 22, 2011.
276. S.B. Cheepala, J. Bao, D. Nachagari, G. Conseil, A.P. Naren, D. Sun, T. Zhong, **S.P.C. Cole**, J. Zheng and J.D. Schuetz. Cytoplasmic loop 3 is critical for expression, function, and localization of human and zebrafish ABCC4/Abcc4. 8th Annual North American ABC Workshop. Frederick, MD. September 28-29, 2011.
277. **S.P.C. Cole** and R.G. Deeley. MRP1 (ABCC1): Two decades of intrigue... . 4<sup>th</sup> FEBS Special Meeting: "ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Disease". Innsbruck, Austria. March 8, 2012. (*Keynote Speaker*)
278. S.H. Iram\* and **S.P.C. Cole**. Mutations in cytoplasmic loop 5 cause misfolding in multiple domains of the multidrug and organic anion transporter MRP1 (ABCC1). 4<sup>th</sup> FEBS Special Meeting: "ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Disease". Innsbruck, Austria. March 3-9, 2012. (*\*ABCC 2012 Young Investigator Award for Best Poster*).
279. A. Hernandez\*, S. Iram, M. Chan and **S.P.C. Cole**. An aspartate residue located in the membrane-cytoplasm interface region of the third helix of MSD1 is crucial for expression of MRP1, MRP2, MRP3 and MRP4. 4<sup>th</sup> FEBS Special Meeting: "ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Disease". Innsbruck, Austria. March 3-9, 2012. (*\*recipient of a FEBS Young Investigator Travel Award*).
280. M.F. Miah and **S.P.C. Cole**. Expression of MRP4 (ABCC4) is downregulated by the NH<sub>2</sub>-truncated CortBP1 isoform of SHANK2. 4<sup>th</sup> FEBS Special Meeting: "ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Disease". Innsbruck, Austria. March 3-9, 2012.
281. Y.I. Hassan, Md. T. Hoque and **S.P.C. Cole**. Phosphorylation of NHERF1 contributes to the membrane trafficking of human MRP4/ABCC4 in polarized epithelia cells. 9th Annual North American ABC Genetic Workshop. Frederick, MD. September 27-28, 2012.

282. A. Hernandez and **S.P.C. Cole**. Optimizing expression and purification of the functionally important COOH-terminal transmembrane helices TM16 and TM17 from human MRP1 (ABCC1) for biophysical studies. 9th Annual North American ABC Genetic Workshop. Frederick, MD. September 27-28, 2012.
283. M.F. Miah and **S.P.C. Cole**. Human multidrug resistance protein 4 (MRP4/ABCC4) is down-regulated by the NH<sub>2</sub>-truncated CortBP1 isoform of SHANK2. 9th Annual North American ABC Genetic Workshop. Frederick, MD. September 27-28, 2012.
284. G. Conseil and **S.P.C. Cole**. Two non-synonymous single nucleotide polymorphisms (nsSNPs) - A989T and C1047S - in the organic anion transporter MRP1/ABCC1 selectively alter drug resistance and efflux inhibition. 9th Annual North American ABC Genetic Workshop. Frederick, MD. September 27-28, 2012.
285. A. Hernandez and **S.P.C. Cole**. TM16/17 hairpin peptide: a model for substrate binding studies for the drug transporter MRP1. 5<sup>th</sup> Annual Resident/Post-Doctoral Research Day, Department of Pathology & Molecular Medicine, Queen's University. Kingston, ON. February 25, 2013.
286. G. Conseil, I.J. Létourneau and **S.P.C. Cole**. The 2965G>A non-synonymous single nucleotide polymorphism (nsSNP) in ABCC1 leading to Ala989Thr mutation in the multidrug resistance protein 1 (MRP1) partially and selectively alters drug transport and resistance. 5<sup>th</sup> Annual Resident/Post-Doctoral Research Day, Department of Pathology & Molecular Medicine, Queen's University. Kingston, ON. February 25, 2013.
287. Y.I. Hassan, Md. T. Hoque and **S.P.C. Cole**. Functional interaction of human multidrug resistance protein 4 (MRP4/ABCC4) with Na<sup>+</sup>/H<sup>+</sup> exchanger regulatory factor 1 (NHERF1) in polarized and non-polarized cells is dependent on the phosphorylation status of NHERF1-PDZ1-Ser77. 5<sup>th</sup> Annual Resident/Post-Doctoral Research Day, Department of Pathology & Molecular Medicine, Queen's University. Kingston, ON. February 25, 2013.
288. C. Gao, M. Chan, G. Conseil and **S.P.C. Cole**. Rescue of misfolded MRP1 mutants involving the highly conserved charged amino acids Arg<sup>1202</sup> and Glu<sup>1204</sup> by expression in insect cells. 5<sup>th</sup> Annual Resident/Post-Doctoral Research Day, Department of Pathology & Molecular Medicine, Queen's University. Kingston, ON. February 25, 2013.
289. M.F. Miah and **S.P.C. Cole**. Cell-surface MRP4 (ABCC4) levels are down-regulated by the NH<sub>2</sub>-truncated CortBP1 isoform of SHANK2. Gordon Research Conference on "Multi-Drug Efflux Systems". Ventura, CA. March 17-22, 2013.
290. C. Gao, G. Conseil, M. Chan and **S.P.C. Cole**. Rescue of misfolded MRP1 mutants involving the highly conserved charged amino acids Arg<sup>1202</sup> and Glu<sup>1204</sup> by expression in insect cells. 16<sup>th</sup> Annual Meeting for Health Sciences Research Trainees, Queen's University. Kingston, ON. June 5, 2013.
291. A. Hernandez and **S.P.C. Cole**. TM16/17 hairpin peptide: a model for substrate binding studies for the drug transporter MRP1. 16<sup>th</sup> Annual Meeting for Health Sciences Research Trainees, Queen's University. Kingston, ON. June 5, 2013.
292. Y.I. Hassan\*, Md. T. Hoque and **S.P.C. Cole**. Ser<sup>77</sup> in Na<sup>+</sup>/H<sup>+</sup> exchanger regulatory factor 1 (NHERF1) plays a crucial role in membrane trafficking of multidrug resistance protein 4 (MRP4). 16<sup>th</sup> Annual Meeting for Health Sciences Research Trainees, Queen's University. Kingston, ON. June 5, 2013. (\**recipient of a Poster Prize - 2<sup>nd</sup> place*).
293. M.F. Miah and **S.P.C. Cole**. CortBP1 isoform of SHANK2 adapter protein down-regulates cell-surface MRP4 (ABCC4) levels in HEK293 cells. 16<sup>th</sup> Annual Meeting for Health Sciences Research Trainees, Queen's University. Kingston, ON. June 5, 2013.
294. G. Conseil and **S.P.C. Cole**. Two non-synonymous single nucleotide polymorphisms (nsSNPs) – A989T and C1047S – in the organic anion transporter MRP1/ABCC1 selectively alter drug resistance and efflux



- inhibition. 16<sup>th</sup> Annual Meeting for Health Sciences Research Trainees, Queen's University. Kingston, ON. June 5, 2013.
295. **S.P.C. Cole**. Polymorphisms in the MRP1 (*ABCC1*) transporter: how important are they? European Union Conference "Role of MDR Proteins in Pharmacokinetics and Toxicology". Ryn, Poland, September 3, 2013. (*Opening Lecture*)
296. Y.I. Hassan, Md. T. Hoque and **S.P.C. Cole**. Role of the PDZ domains of human NHERF1 in regulating surface expression and cellular trafficking of the multidrug resistance protein-4, MRP4 (*ABCC4*). 10<sup>th</sup> Annual North American ABC Meeting. Frederick, MD, September 19-20, 2013.
297. M.F. Miah and **S.P.C. Cole**. Cell-surface MRP4 (*ABCC4*) levels are down-regulated by the NH<sub>2</sub>-truncated CortBP1 isoform of SHANK2. 10<sup>th</sup> Annual North American ABC Meeting. Frederick, MD, September 19-20, 2013.
298. **S.P.C. Cole**. Misfolding mutants of MRP1 (*ABCC1*): Useful tools for investigating domain-domain interactions of the transporter. 6<sup>th</sup> Annual SFB35 Symposium "Transmembrane Transporters in Health and Disease", Vienna, Austria. September 23, 2013.
299. C. Gao, G. Conseil and **S.P.C. Cole**. Rescue of misfolded MRP1 mutants involving the highly conserved charged amino acids Arg<sup>1202</sup> and Glu<sup>1204</sup> by heterologous expression in insect cells. 10<sup>th</sup> International Society for the Study of Xenobiotics Meeting, Toronto, ON. September 29-October 3, 2013. *Drug Metab. Rev.* 45: 268-269 (2014).
300. C. Gao\*, M. Chan, G. Conseil and **S.P.C. Cole**. Heterologous expression in insect cells rescues expression but not function of misfolded MRP1/*ABCC1* mutants. 5<sup>th</sup> FEBS Special Meeting "ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Diseases". Innsbruck, Austria, March 8-14, 2014. (*\*recipient of a Queen's University Postdoctoral Travel Award*).
301. M.A. Csandl, G. Conseil and **S.P.C. Cole**. Effect of leukotriene modifiers on transport activity of multidrug resistance proteins (MRPs). Abstract #1449. Experimental Biology 2015, Boston, MA. March 28-April 1, 2015. *FASEB J.* 29: Suppl 939.4 (2015).
302. M.F. Miah, G. Conseil and **S.P.C. Cole**. N-linked glycans do not affect plasma membrane localization of multidrug resistance protein 4 (MRP4) but selectively alter its prostaglandin E<sub>2</sub> transport activity. 6<sup>th</sup> FEBS Special Meeting "ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Diseases". Innsbruck, Austria, March 4-11, 2016.
303. G. Conseil and **S.P.C. Cole**. *ABCC4* polymorphisms differentially affect levels and transport activity of the human organic anion transporter MRP4. 6<sup>th</sup> Special Meeting "ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Diseases". Innsbruck, Austria, March 4-11, 2016.
304. K. Ziems, S. Bröderdorf, B. Rauch, **S.P.C. Cole**, and G. Jedlitschky. Transcriptional regulation of the MRP4 (*ABCC4*) transporter. 6<sup>th</sup> FEBS Special Meeting "ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Diseases". Innsbruck, Austria, March 4-11, 2016.
305. B.D. Whitlock, D.P. Swanlund, X.C. Le, J.D. Schuetz, **S.P.C. Cole**, and E.M. Leslie. Differential specificity of the human and mouse multidrug resistance protein 4 orthologs for arsenic metabolites. Experimental Biology 2016, San Diego, CA. April 2-6, 2016. *FASEB J.* 30: Suppl 1, 1497 (2016).
306. E.E. Smith, G. Conseil and **S.P.C. Cole**. Exploring the consequences of mutating the hinge regions of the organic anion transporter, MRP1. 19<sup>th</sup> Annual Meeting for Health Sciences Research Trainees, Queen's University. Kingston, ON. May 25, 2016.
307. C.B. Shukalek, D.P. Swanlund, R.K. Rousseau, K.E. Weigl, **S.P.C. Cole**, and E.M. Leslie. Arsenic transport by the human multidrug resistance protein 1 (MRP1/*ABCC1*) is selectively modified by phosphorylation and glycosylation. 16<sup>th</sup> IUBMB Conference, Vancouver, BC. July 17-21, 2016.

308. J.F. Power and **S.P.C. Cole**. Evaluation of drug resistance transfer via extracellular vesicles in human ovarian cancer cells. 6<sup>th</sup> Annual Meeting of the International Society for Extracellular Vesicles, Toronto, ON. May 18-21, 2017.
309. G. Conseil, K. Ziems, M. Banerjee, E.M. Leslie and **S.P.C. Cole**. Non-synonymous variants of the human organic anion transporter MRP4 (ABCC4) impair protein levels and trafficking to the plasma membrane. 60<sup>th</sup> Annual Conference of the Canadian Society for Molecular Biosciences. Ottawa, ON. May 16-20, 2017.
310. E.E. Smith\*, G. Conseil and **S.P.C. Cole**. Functional analysis of the regions connecting the membrane spanning domains to the nucleotide binding domains of the 190 kDa multidrug resistance protein 1 (MRP1). 60<sup>th</sup> Annual Conference of the Canadian Society for Molecular Biosciences. Ottawa, ON. May 16-20, 2017. (\*recipient of the Traffic-Wiley Publishing poster prize)
311. J.F. Power and **S.P.C. Cole**. Evaluation of drug resistance transfer via extracellular vesicles in human ovarian cancer cells. 20<sup>th</sup> Annual Meeting for Health Sciences Research Trainees, Queen's University. Kingston, ON. May 24, 2017.
312. G. Conseil, K. Ziems, M. Banerjee, E.M. Leslie and **S.P.C. Cole**. Non-synonymous variants of the human organic anion transporter MRP4 (ABCC4) impair protein levels and trafficking to the plasma membrane. 20<sup>th</sup> Annual Meeting for Health Sciences Research Trainees, Queen's University. Kingston, ON. May 24, 2017.
313. E.E. Smith, G. Conseil and **S.P.C. Cole**. Functional analysis of the regions connecting the membrane spanning domains to the nucleotide binding domains of the 190 kDa multidrug resistance protein 1 (MRP1). 20<sup>th</sup> Annual Meeting for Health Sciences Research Trainees, Queen's University. Kingston, ON. May 24, 2017.
314. E.E. Smith, G. Conseil and **S.P.C. Cole**. Differential importance of the connecting regions in the biosynthesis and function of multidrug resistance protein 1 (MRP1). Terry Fox Research Institute, Ontario Node Research Symposium, Toronto, ON. December 4, 2017.
315. G. Conseil and **S.P.C. Cole**. Reconciling the cryoEM structure of MRP1 with mutational analyses: The story of Met<sup>1093</sup>. Terry Fox Research Institute, Ontario Node Research Symposium, Toronto, ON. December 4, 2017.
316. K.M. Hanssen, C.C. Gana, D.M.T. Yu, C.L. Flemming, A. DeFazio, C. Kennedy, R. Young, G. Wright, B. Solomon, G. Conseil, **S.P.C. Cole**, M.D. Norris, M. Haber, J.I. Fletcher. Modulator of MRP1 synergises with buthionine sulfoximine to chemosensitise and abolish clonogenic capacity of cancer cells. 7th FEBS Special Meeting "ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Diseases". Innsbruck, Austria, March 6-10, 2018.
317. E.E. Smith\*, G. Conseil and **S.P.C. Cole**. Regions connecting the membrane spanning and nucleotide binding domains of Multidrug resistance protein 1 (MRP1) are functionally distinct. 61<sup>st</sup> Annual Meeting of the Canadian Society for Molecular Biosciences on "Membrane Proteins in Health and Disease". Banff, AB. April 11-15, 2018. *Recipient of a CSMB Travel Award (\$500)*
318. **S.P.C. Cole**. Protein-protein interactions and membrane localization of the ABCC4 multidrug and organic anion transporter. 61<sup>st</sup> Annual Meeting of the Canadian Society for Molecular Biosciences on "Membrane Proteins in Health and Disease". Banff, AB. April 13, 2018. (*invited speaker*)
319. E.E. Smith, G. Conseil and **S.P.C. Cole**. Regions connecting the membrane spanning and nucleotide binding domains of multidrug resistance protein 1 (MRP1) are functionally distinct. 21st Annual Meeting for Health Sciences Research Trainees, Queen's University. Kingston, ON. June 13, 2018.

320. A. Kragl, K. Ziems, J. Glaubitz, S. Grammbauer, S. Broderdorf, **S.P.C. Cole**, M. Tzvetkov, G. Jedlitschky. Regulation of basal promoter activity of the human MRP4 (ABCC4) transporter. 4<sup>th</sup> German Pharm-Tox Summit, Stuttgart, Germany. February 25-28, 2019.
321. K.M. Hanssen, C.C. Gana, M.S. Wheatley, D.M.T. Yu, C.L. Flemming, R. Young, G. Wright, G. Conseil, C. Kennedy, A. DeFazio, B. Solomon, **S.P.C. Cole**, M.D. Norris, M. Haber, and Fletcher, J.I. Modulation of MRP1 activity reverses chemotherapy resistance in adult cancer cells. AACR Annual Meeting. Atlanta, GA. March 29 – April 3, 2019. *Proc. Amer. Assoc. Cancer Res.* 60: 4214 (2019).
322. G. Conseil and **S.P.C. Cole**. Structure-guided probing of the leukotriene C<sub>4</sub> binding site in the human MRP1 (ABCC1) transporter. 62<sup>nd</sup> Annual Conference of the Canadian Society for Molecular Biosciences. Montréal, QC. June 2-5, 2019.